DOCUMENT RESUME

ED 418 211 CE 075 021

TITLE	The DACUM Job Analysis Process.
INSTITUTION	Dofasco, Inc., Hamilton (Ontario).
REPORT NO	HR-6685-TR002
PUB DATE	1996-10-18
NOTE	79p.; For a related document, see CE 074 908.
PUB TYPE	Guides - Non-Classroom (055)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	Check Lists; *Competency Based Education; *Curriculum Development; Data Collection; Education Work Relationship; Educational Needs; *Job Analysis; *Job Skills; *Needs Assessment; Occupational Information; Postsecondary Education; Recordkeeping; Records (Forms); Secondary Education; Task Analysis; Validity; *Vocational Education; Worksheets; Workshops
IDENTIFIERS	*DACUM Process

ABSTRACT

This document explains the DACUM (Developing A Curriculum) process for analyzing task-based jobs to: identify where standard operating procedures are required; identify duplicated low value added tasks; develop performance standards; create job descriptions; and identify the elements that must be included in job-specific training programs. The following are among the topics discussed in sections 1-14: purpose and scope of the process; responsibilities of key players in the process (level 3 facilitators, customers, sponsors, task analysts, workshop facilitation team members); process overview (conducting information presentations, and DACUM Job Analysis Process High Level Flow Diagram); DACUM process policies and guidelines; needs assessment process; considerations in establishing a priority process; customer service agreements; job site visits; three phases of the DACUM job analysis process (DACUM workshop); validation; task analysis; evaluations and audits; DACUM facilitator development process; and recordkeeping and tracking. Concluding the document are a list of four references and the history of the process's revision. Appended are a DACUM information packet and various job analysis process-related forms, including the following: DACUM needs assessment form; internal customer/supplier form agreement; DACUM duty templates; DACUM profile, priority rating chart, and validation letter; task analysis data sheet; job reengineering worksheet; template for developing performance standards; sample level 1 evaluation; audit check sheet; and facilitator evaluation check sheet. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 418 211

The DACUM Job Analysis Process

DOFASCO

CE 075 021

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

K McLaughlin

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

BEST COPY AVAILABLE

TABLE OF CONTENTS

1.0 PURPOSE AND SCOPE 6

2.0 RESPONSIBILITY 7
2.1 Level 3 Facilitator 7
2.2 Customer 7
2.3 Sponsor 7
2.4 Task Analyst(s) 8
2.5 Workshop Facilitation Team 8

3.0 PROCESS OVERVIEW 9
3.1 Conducting Information Presentations 9
Chart 3.A - DACUM Job Analysis Process High Level Flow Diagram 10

4.0 DACUM PROCESS POLICIES AND GUIDELINES 11

5.0 NEEDS ASSESSMENT PROCESS 12
Chart 5.A - Needs Assessment Process 13

6.0 ESTABLISHING PRIORITY PROCESS 14
Chart 6.A - Establishing Priority Process 15
6.1 Priority Assessment Criteria 16
6.1.1 Probability of Success 16
6.1.2 Cost/Impact of Problem 16
6.1.3 Cost of Solution 16
6.1.4 Time to Implement 16
6.2 Priority Index Formula 17
6.3 Over-Riding Factors 17
6.4 Alternative Methods 17

7.0 CUSTOMER SERVICE AGREEMENT 20
Chart 7.A - Customer Service Agreement Process 21

8.0 JOB SITE VISIT 22
Chart 8.A - Job Site Visit Process 23

9.0 PHASE 1: DACUM WORKSHOP 24
9.1 Criteria for Panel Selection 24

Copyright © Dofasco Inc. 1995 , All Rights Reserved

9.2 Guidelines for Running a DACUM Workshop . . . 24
9.3 DACUM Profile Quality Criteria . . . 26
Chart 9.A - Phase 1: DACUM Workshop Process (Day 1) . . . 28
Chart 9.B - Phase 1: DACUM Workshop Process (Day 2) . . . 29

10.0 PHASE 2: VALIDATION . . . 30
Chart 10.A - Phase 2: Validation Process . . . 31

11.0 PHASE 3: TASK ANALYSIS . . . 32
11.1 Development of Standard Operating Procedures and Job Aids . . . 32
11.2 Development of Training Programs . . . 32
11.3 Job Re-Engineering and Job Comparison . . . 33
11.4 Development of Performance Standards and Competency Evaluations . . . 33
11.5 Development of a Job Description . . . 33
Chart 11.A - Phase 3: Task Analysis Process . . . 34

12.0 EVALUATIONS AND AUDITS . . . 35
12.1 Evaluations . . . 35
12.1.1 Purpose of Level 1 Evaluation . . . 35
12.1.2 Responsibility . . . 35
12.1.3 Data Collection Process . . . 35
12.2 Conducting Audits . . . 35
12.2.1 Purpose of Audits . . . 36
12.2.2 Responsibility . . . 36
12.2.3 Audit Criteria . . . 36
12.2.4 Providing Feedback . . . 36
Chart 12.A - Audit Process . . . 37

13.0 DACUM FACILITATOR DEVELOPMENT PROCESS . . . 38
13.1 Criteria for Selection . . . 38
13.2 Facilitator Development . . . 38
13.2.1 Level 1 Facilitator Development . . . 38
13.2.2 Level 2 Facilitator Development . . . 39
13.2.3 Level 3 Facilitator Development . . . 40
13.3 Facilitator Evaluation . . . 40

14.0 RECORD KEEPING AND TRACKING . . . 42
14.1 Software . . . 42
14.2 Software Criteria . . . 42
14.3 Additional Software Options . . . 43

15.0 REFERENCES . . . 44

Copyright © Dofasco Inc. 1995 . All Rights Reserved

16.0 REVISION HISTORY 45

APPENDIX A: DACUM INFORMATION PAMPHLET 46

APPENDIX B: DACUM NEEDS ASSESSMENT FORM 48

APPENDIX C: ANALYSIS OF NEEDS ASSESSMENT DATA FORM 50

APPENDIX D: INTERNAL CUSTOMER/SUPPLIER AGREEMENT FORM FOR DACUM ANALYSIS 51

APPENDIX E: DACUM DUTY TEMPLATES 52

APPENDIX F: DACUM PROFILE, PRIORITY RATING CHART, VALIDATION LETTER 53

APPENDIX G: TASK ANALYSIS DATA SHEET 60

APPENDIX H: JOB RE-ENGINEERING WORK-SHEET 62

APPENDIX I: TEMPLATE FOR DEVELOPING PERFORMANCE STANDARDS 64

APPENDIX J: EXAMPLE OF LEVEL 1 EVALUATION (SMILE SHEET) 66

APPENDIX K: AUDIT CHECK SHEET 67

APPENDIX L: FACILITOR EVALUATION CHECKSHEET 69

Copyright © Dofasco Inc. 1995, All Rights Reserved

1.0 PURPOSE AND SCOPE

DACUM is a tool that is used to produce a job profile for the purpose of analyzing task based jobs. The analysis will be used to: identify where standard operating procedures are required; identify duplicated, low value added tasks; develop performance standards; create job descriptions; and identify what elements must be included in job specific training programs.

DACUM will not be used for or in association with: developing pay for skills programs; eliminating jobs; or analyzing jobs currently impacted by the 'Management Resourcing' succession planning system.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

2.0 RESPONSIBILITY

Experienced Level 3 DACUM Facilitators *(See Facilitator development section 13.2.3 page 40)* within the Human Resources Training Department are responsible for ensuring that the process defined within this document is followed, administered, and adhered to. Level 3 Facilitators are responsible for ensuring that the following responsibilities and roles are understood and carried out by the Business Units and Staff Departments.

2.1 Level 3 Facilitator (Assigned by Training Department)

- Provides information/presentations to customer
- Conducts the needs assessment
- Determines priority index
- Develops customer service agreement
- Arranges DACUM workshop(s)
- Coordinates workshop facilitation team
- Ensures profiles are produced
- Initiates the validation process
- Provides training, support, and consulting services during the Task Analysis Phase of process
- Conducts audits and assessments

2.2 Customer (Business Units/Staff Department)

- Provides the required resources
- Provides a sponsor
- Provides task analyst(s) (if required)
- Determines objectives and purpose of the analysis
- Identify what jobs need to be analyzed
- Determines the time-lines
- Communicates the process to rest of the Staff Department/Business Unit
- Ensures the process is carried out to completion

2.3 Sponsor (Assigned by Business Unit/Staff Department)

- Selects the panel(s) members based on the outlined criteria defined in section 9.1 page 24.
- Preps the panel members
- Monitors and adheres to the time-lines
- Coordinates the validation session(s)

Copyright © Dofasco Inc. 1995, All Rights Reserved

- Acts as liaison between Lead Facilitator and Customer
- Ensures the process is brought to completion

2.4 Task Analyst(s) (Assigned by Business Unit/Staff Department)

- Attends the required training
- Has the time and support to fulfil this function
- Develops the profile into the end product

2.5 Workshop Facilitation Team (Assigned by Training Department)

Facilitator(s)	•	Leads and facilitates the two day workshop
	•	Leads and facilitates the validation session
Recorder	•	Records the information generated during the two day workshop

Copyright © Dofasco Inc. 1995 , All Rights Reserved

3.0 PROCESS OVERVIEW

The job analysis process consists of three phases: the two-day workshop phase; the profile validation phase; and the task analysis phase. Information describing the phases and outcomes can be found in a pamphlet titled "The DACUM Approach to Occupational Analysis" in Appendix A page 46.

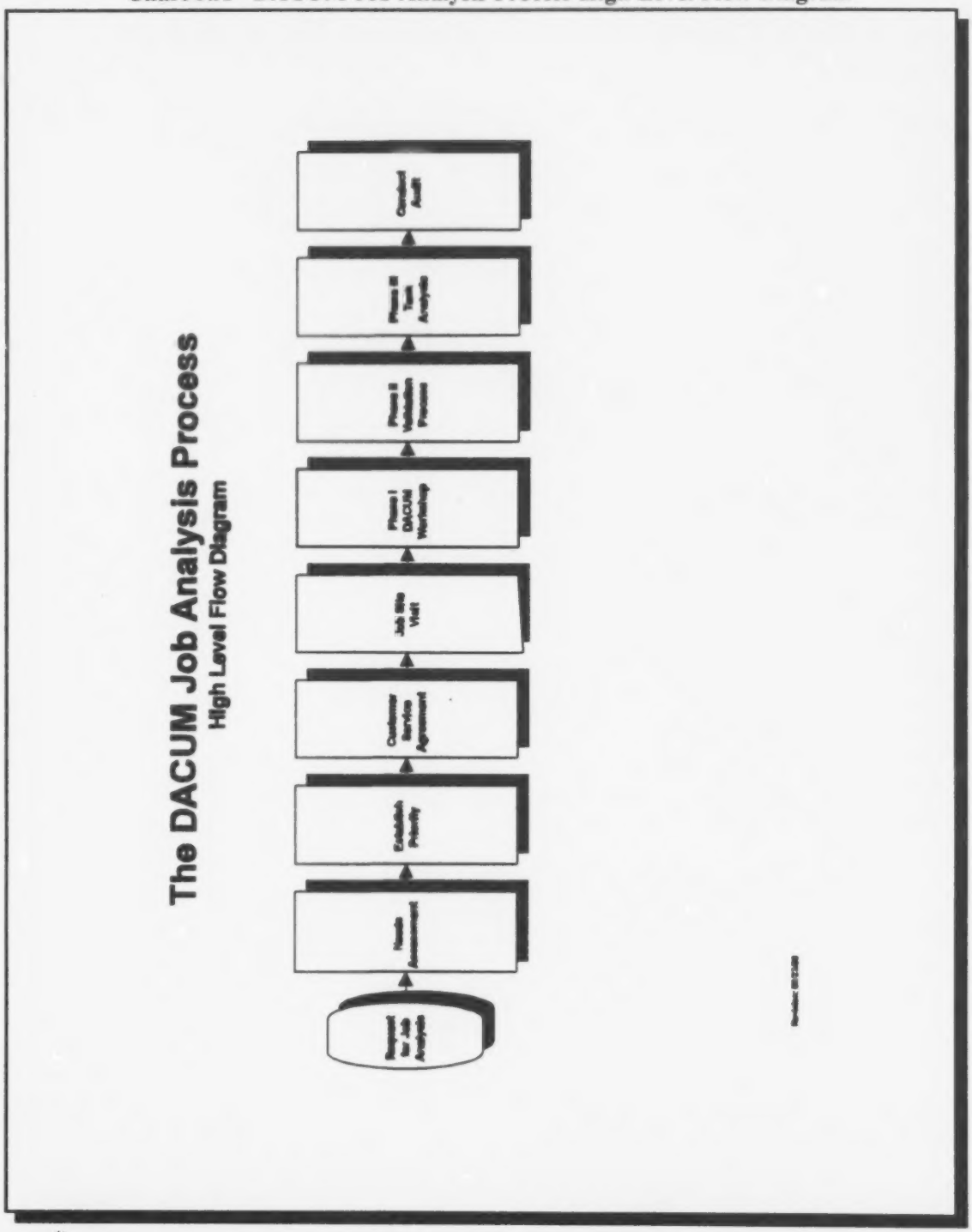
However the entire process, shown in the high level flow diagram (Chart 3.A, page 10), consists of conducting a full needs assessment, establishing priority, developing a customer service agreement, conducting a job site visit, conducting the three phase DACUM process, and monitoring success through audits.

3.1 Conducting Information Presentations

Prior to conducting the needs assessment, an information presentation is usually required. The Level 3 Facilitator provides a formal or informal presentation to the staff/management of the requesting area. In this presentation the facilitator explains the job analysis process by explaining each of the following components: needs assessment, customer service agreement, job visit, workshop, validation, tasks analysis, and auditing. The Facilitator also provides examples of the end uses, explains the responsibilities of the Business Unit/ Staff Department, identifies the resource requirements, and explains the criteria for panel selection. An example of a DACUM profile (Appendix F, page 53) and an information pamphlet (Appendix A, page 46) is distributed to all participants. The Facilitator also brings examples of completed job aids, learning guides, and other products developed from the profile.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Chart 3.A - DACUM Job Analysis Process High Level Flow Diagram



Copyright © Dofasco Inc. 1995 , All Rights Reserved

BEST COPY AVAILABLE

4.0 DACUM Process Policies and Guidelines

The following policies and guidelines will be enforced by all DACUM Facilitators. Level 3 Facilitators are responsible for ensuring compliance with the policies and revising them as required.

1. Each request for a DACUM job analysis will be assessed by a Level 3 DACUM Facilitator using the needs analysis questionnaire found in Appendix B, page 48. The Level 3 Facilitator will determine the priority status and feasibility of conducting workshops for the requesting area.

2. Each Department or Business Unit will sign an agreement which identifies resources, jobs to be analyzed, time-lines, and purpose of the analysis. Breech of the agreement will result in termination of the process.

3. The agreement approves a maximum of four (4) DACUM Workshops to be conducted and upon completion will be reviewed for compliance to agreement. Incompliance will terminate any additional workshops.

4. The DACUM profiles are the property of the customer and any reproductions of the profiles can only be made with the customers full approval. This approval is gained during the validation session and is noted on the profile in the 'approval to copy' field.

5. All DACUM Facilitator(s) and staff will maintain full confidentially during and after the workshop. Any confidential information inadvertently disclosed will remain confidential and not be discussed outside the workshop by any Facilitator(s) or DACUM Staff members.

6. Each profile will comply with Government legislation and Dofasco policies.

7. Deviation from the process ie. by-passes the validation phase, will be investigated and could result in termination of agreement and services.

8. The Level 3 Facilitator may assist in the audits being conducted within his/her area of involvement, but may not lead the audit.

9. DACUM will not be used for job elimination, job or salary evaluations, pay for skills, and management jobs that are covered by succession planning.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

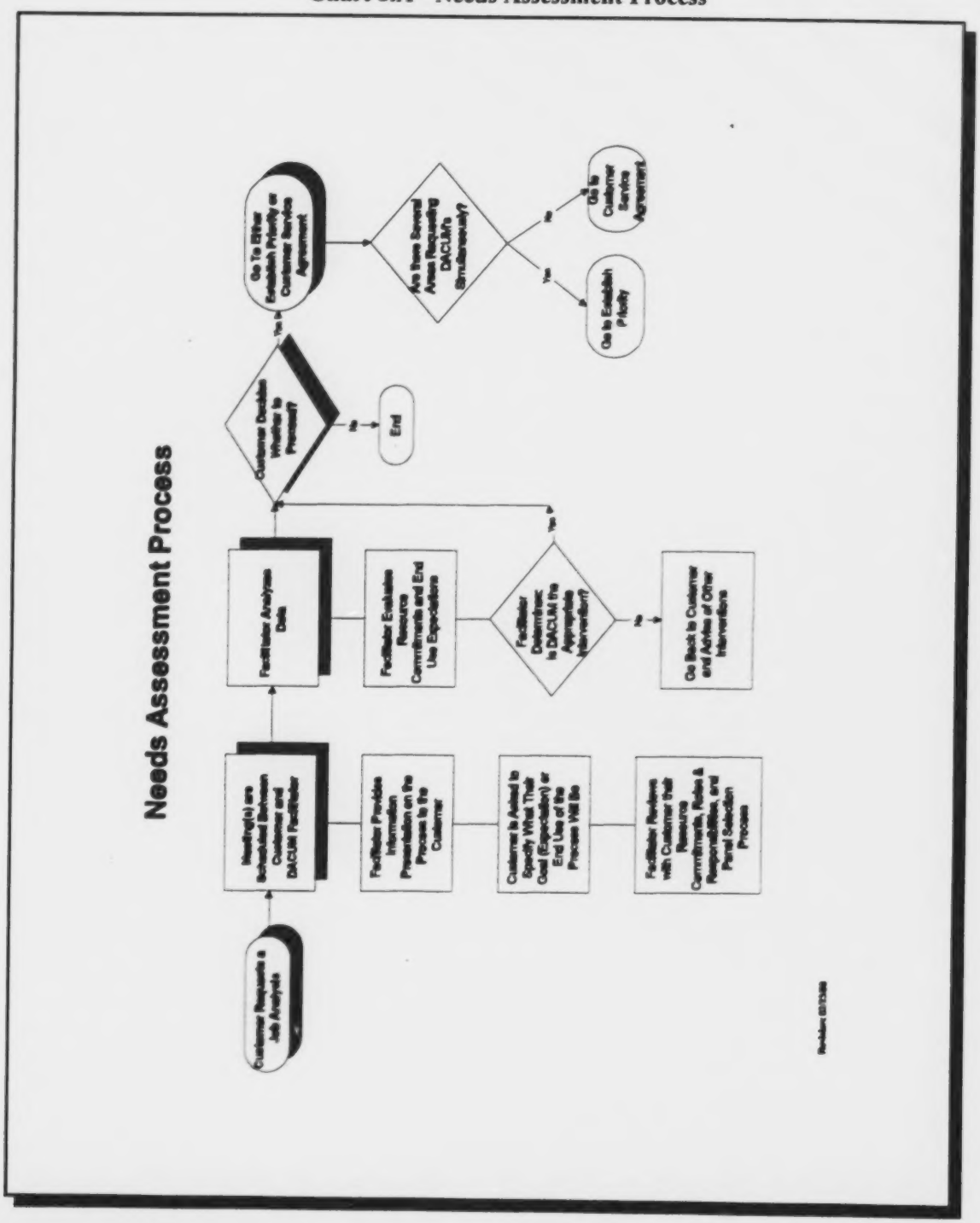
5.0 NEEDS ASSESSMENT PROCESS

A full needs assessment is conducted by a Level 3 Facilitator upon receiving the request for a job analysis. Flow chart 5.A on page 13 defines the needs assessment process. The analysis identifies how many jobs will need to be analyzed and whether DACUM is the appropriate intervention. The needs assessment is conducted using the form in Appendix B, page 48.

The data gathered from the customer in the needs assessment is then analyzed using the form in Appendix C, page 50. The analysis ensures that a clear identification of previous history, need, use, application, time, and resource requirements are noted. This information is used to establish priority, determine whether all the elements are in place to proceed, and develop the customer service agreement.

Copyright © Dofasco Inc. 1995, All Rights Reserved

Chart 5.A - Needs Assessment Process


Needs Assessment Process
Customer Requests a Job Analysis
Meeting(s) are Scheduled Between Customer and DACUM Facilitator
Facilitator Provides Information Presentation on the Process to the Customer
Customer is Asked to Specify What Their Goal (Expectation) or End Use of the Process Will Be
Facilitator Reviews with Customer the Resulting Commitments, Roles & Responsibilities, and Panel Selection Process
Facilitator Analyses Data
Facilitator Evaluates Resource Commitments and End Use Expectations
Facilitator Determines: Is DACUM the Appropriate Intervention?
No
Go Back to Customer and Advise of Other Interventions
Yes
Customer Decides Whether to Proceed?
No
End
Yes
Go To Either Establish Priority or Customer Service Agreement
Are there Several Areas Requesting DACUM's Simultaneously?
No
Go to Customer Service Agreement
Yes
Go to Establish Priority

BEST COPY AVAILABLE

Copyright © Dofasco Inc. 1995 , All Rights Reserved

6.0 ESTABLISHING PRIORITY PROCESS

This process is initiated when two or more requests come in concurrently. The Level 3 Facilitator(s) conduct the needs assessment for each request. Once all the needs have been analyzed and identified as valid, the prioritization process is initiated. Chart 6.A on page 15 describes the process.

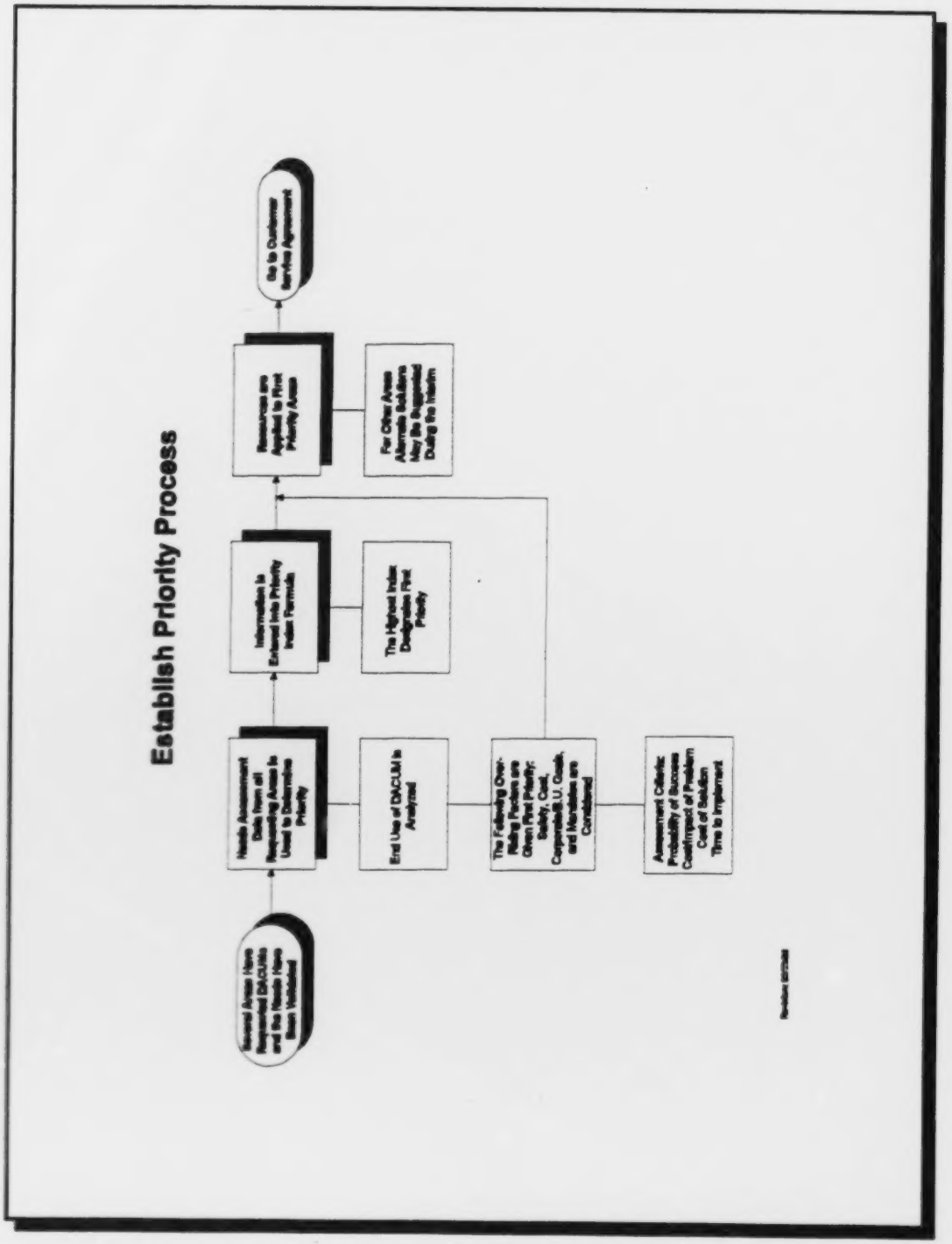
The end-use stated on the needs assessment is classified in one of the three categories listed in the table below:

Safety / Environment / Legislation	Quality / Productivity / Efficiency	Human Resource Issues
Development of S.O.P.'s	Job Comparison	Job Definition
Equity Issues	Development of S.O.P.'s	Development of Job Aids
Training	Job Re-Engineering	Development of Training
	Ensuring Consistent Training & Procedures	Development of Performance Standards
	Multi-Skilling	Recruitment
		Competency Evaluation
		Identification of Skills & Knowledge Requirements

Copyright © Dofasco Inc. 1995 , All Rights Reserved

17

Chart 6.A - Establishing Priority Process


Establish Priority Process
Several Areas Have Requested DACUMs and the Needs Have Been Validated
Needs Assessment Data from all Requesting Areas is Used to Determine Priority
End Use of DACUM is Analyzed
The Following Over-Riding Factors are Given First Priority: Safety, Cost, Corporate U. Goals, and Mandates are Considered
Assessment Criteria: Probability of Success Cost/Impact of Problem Cost of Solution Time to Implement
Information is Entered into Priority Index Formula
The Highest Index Designates First Priority
Resources are Applied to First Priority Area
For Other Areas Alternate Solutions May Be Suggested During the Interim
Go to Customer Service Agreement

BEST COPY AVAILABLE

Copyright © Dofasco Inc. 1995 . All Rights Reserved

16

6.1 Priority Assessment Criteria

The assessment criteria consists of the following four components:

1. Probability of Success
2. Cost / Impact of Problem
3. Cost of Solution
4. Time to Implement

From the information gathered in the needs assessments a relative measure is determined by weighing the critical success factors associated with each component.

6.1.1 Probability of Success

The critical success factor is found by determining - "How many factors are there that could stop this process?" Ie. Prevent us from completing the full process and achieving the desired result or end product.

The relative measure is a scale of 1 - 10 with 1 = Low probability; 5 = Moderate probability; 10 = High probability of success.

6.1.2 Cost/Impact of Problem

The critical success factor is found by determining - "What would the impact of not doing it be?" Ie. Would it result in high cost, poor quality, loss of productivity, safety issues etc.

The relative measure is a scale of 1 - 10 with 1 = Small cost/impact; 5 = Moderate cost/impact; 10 = High cost/impact.

6.1.3 Cost of Solution

The critical success factor is found by determining - "What will the cost be to H.R.?" Ie. Costs in terms of resources (internal/external), time and availability, and additional support services (long term/short term).

The relative measure is a scale of 1 - 10 with 1 = Low cost; 5 = Moderate cost; 10 = High cost.

6.1.4 Time to Implement

The critical success factor is found by determining - "Are the necessary elements for implementation available?" Ie. Does the customer have the people, time, and motivation to complete the process in a reasonable time frame.

The relative measure is a scale of 1 - 10 with 1 = Short time frame; 5 = Moderate time frame; 10 = Long time frame.

Copyright © Dofasco Inc. 1995, All Rights Reserved

6.2 Priority Index Formula

The subjective ratings for each component is entered into the following formula and calculated out to determine the 'Priority Index'. The high priority is granted to the highest Priority Index Number.

$$f(x) = \frac{\text{P[Success]} \times \text{Cost/Impact of Problem}}{\text{Cost of Solution} \times \text{Time to Implement}}$$

6.3 Over-Riding Factors

This process would not be used if any of the following factors are present:

- The analysis is being conducted due to safety, environment, or legislated issues.
- Cost reduction initiatives have become a priority.
- Other Corporate or Business Unit/Staff Department goals have become a high priority.
- Management has mandated the analysis to be done.

6.4 Alternative Methods

Once the high priority area has been determined, resources are dedicated to that area and the other areas fall into line based on their priority index numbers. For the remaining areas other interventions will be suggested that may provide good alternatives:

- Provide them with existing charts similar to the job function to be analyzed
- Train some of their people to conduct the workshop
- Bring in external resources (depending of critically of situation)

Example:

Three areas simultaneously request a series of DACUM job analysis. Department A, Department B, and Department C all believe their request to be high priority. None of the requests have any over-riding factors prevailing.

1. Probability of Success:

Department A's situation - ran DACUM sessions in the past and based on historical data, achieved minor results but did not complete their entire objectives, therefore we will rate them as low giving them a numeric value of 3.

Department B's situation - also perviously ran DACUM sessions with complete success in achieving their objectives, therefore we will rate them as high giving

Copyright © Dofasco Inc. 1995, All Rights Reserved

them a numeric value of 10.

Department C's situation - have never participated in DACUM job analysis sessions and based on the needs assessment have good intentions but may not be able to provide all the resources required, therefore we'll give them a moderate rating of 5 since it could go either way.

2. Cost/Impact of Problem:

Department A - want to use DACUM's to develop S.O.P.'s in order to achieve QS 9000 certification and also reduce the cost of poor quality, therefore we can give them a high rating of 9.

Department B - want to continue with the development of their job aids. They have already completed all their high priority critical jobs and now want to move down to the next level, therefore we will give them a moderate rating of 6.

Department C - are not sure what this can do for them (if anything) and want to try it out by developing a job description for their high priority jobs, therefore we'll give them a small impact rating of 1.

3. Cost of Solution:

Department A - although they have already received substantial training in task analysis, because of constant turn over of resources they will need additional training and support, therefore we will give them a moderate rating of 5.

Department B - having gone through the process, they are well experienced in task analysis and will not require any additional training or support therefore we will rate them as low cost and assign a numeric value of 3.

Department C - are completely novice to the process and will require a lot of training, support, and coaching therefore we will give them a high cost rating of 8.

4. Time to Implement:

Department A - based on historical data, their implementation time was excessively long and resulted in not achieving their objectives. The needs assessment indicates that no measure have been taken to eliminate the problem therefore, we will assume a long time to implement and rate them at 8.

Department B - based on historical data, their original implementation time was long but now they have gained experience and reduced the learning curve

Copyright © Dofasco Inc. 1995 , All Rights Reserved

significantly. Their needs assessment shows that the original core group will be heading up the task analysis process and they are bringing in additional resources to assist, therefore we will assume a short time to implement and rate them a 2.

Department C - we have no historical data to go by and based on their needs assessment they have good intentions but some resource problems to sort out, therefore we will assume moderate time to implement and rate them at 4.

The ratings look like this:

Factor	Department A	Department B	Department C
Probability of Success	Low 3	High 10	Mod 5
Cost/Impact of Problem	High 9	Mod 6	Small 1
Cost of Solution	Mod 5	Low 3	High 8
Time to Implement	Long 8	Short 2	Mod 4
Priority Index	**.675**	**10**	**.156**

The results show that we should give first priority to Department B, followed by Department A and then Department C.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

7.0 CUSTOMER SERVICE AGREEMENT

Based on the results of the needs analysis and the prioritization process a customer service agreement is developed using the form found in Appendix D, page 51. This agreement defines the purpose of the analysis, number and title of jobs to be analyzed, time-lines, additional services, training and support requirements, and the resources involved.

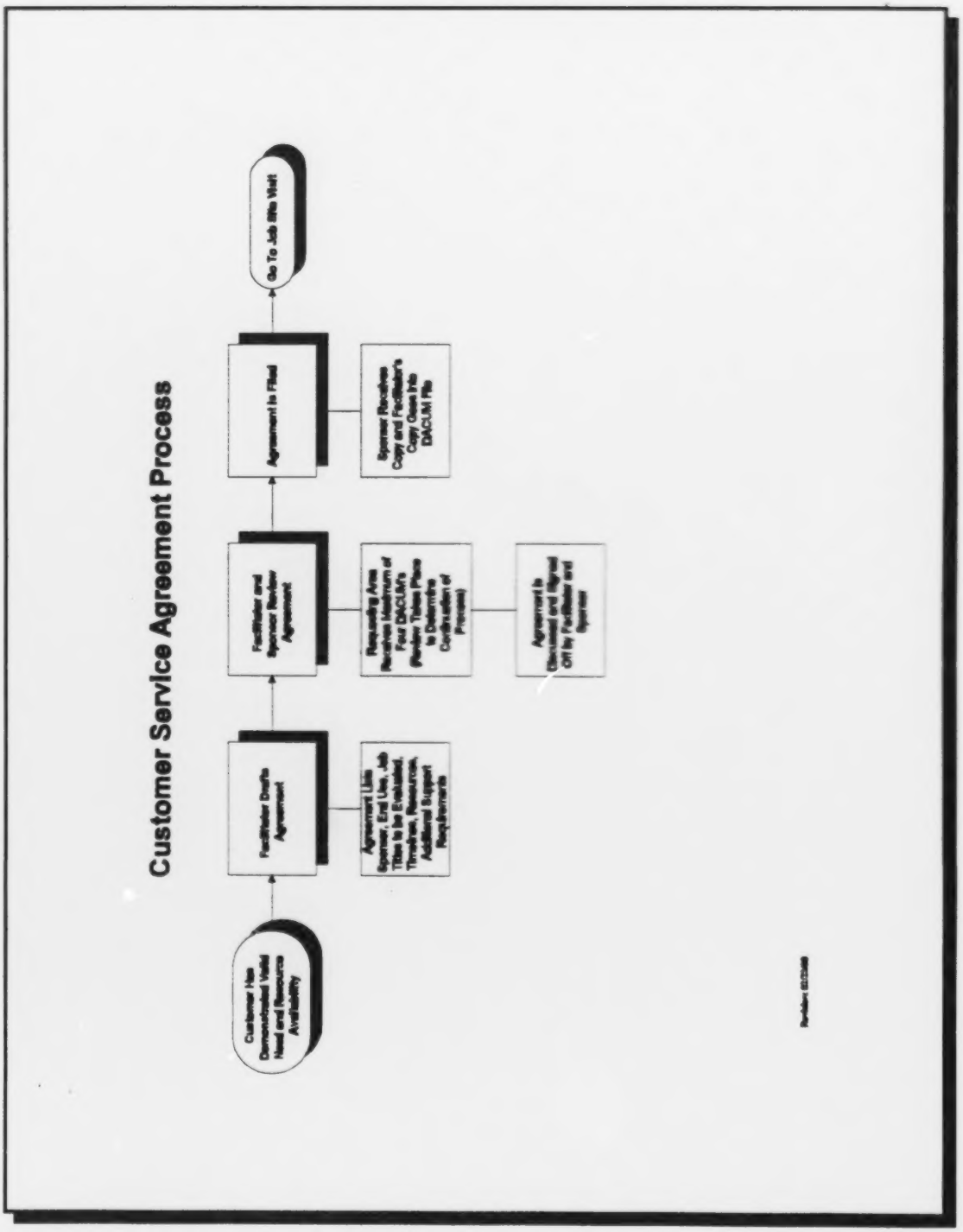
The document is completed by the Level 3 Facilitator and presented back to the Business Unit/Staff Department for review and approval. Once approved, the agreement is signed by the Business Unit Manager/Staff Department Manager and Manager of Training.

This assures that full understanding of deliverables are realized by all parties involved. The process is defined in chart 7.A on page 21. Each needs assessment and agreement is valid for a maximum of four DACUM workshops. The task analysis phase is monitored and based on the progress of the task analysis, if additional workshops are required, another needs analysis is conducted and new service agreement developed.

Copyright © Dofasco Inc. 1995, All Rights Reserved

24

Chart 7.A - Customer Service Agreement Process


Customer Service Agreement Process
Customer Has Demonstrated Valid Need and Resource Availability
FacilRater Drafts Agreement
Agreement Lists Sponsor, End User, Job Titles to be Evaluated, Timelines, Resources, Additional Support Requirements
FacilRater and Sponsor Review Agreement
Requesting Area Receives Maximum of Four DACUM's (Review Times Prior to Determine Continuation of Process)
Agreement is Discussed and Signed Off by FacilRater and Sponsor
Agreement is Filed
Sponsor Receives Copy and FacilRater's Copy Goes Into DACUM File
Go To Job Site Visit

BEST COPY AVAILABLE

Copyright © Dofasco Inc. 1995 , All Rights Reserved

23

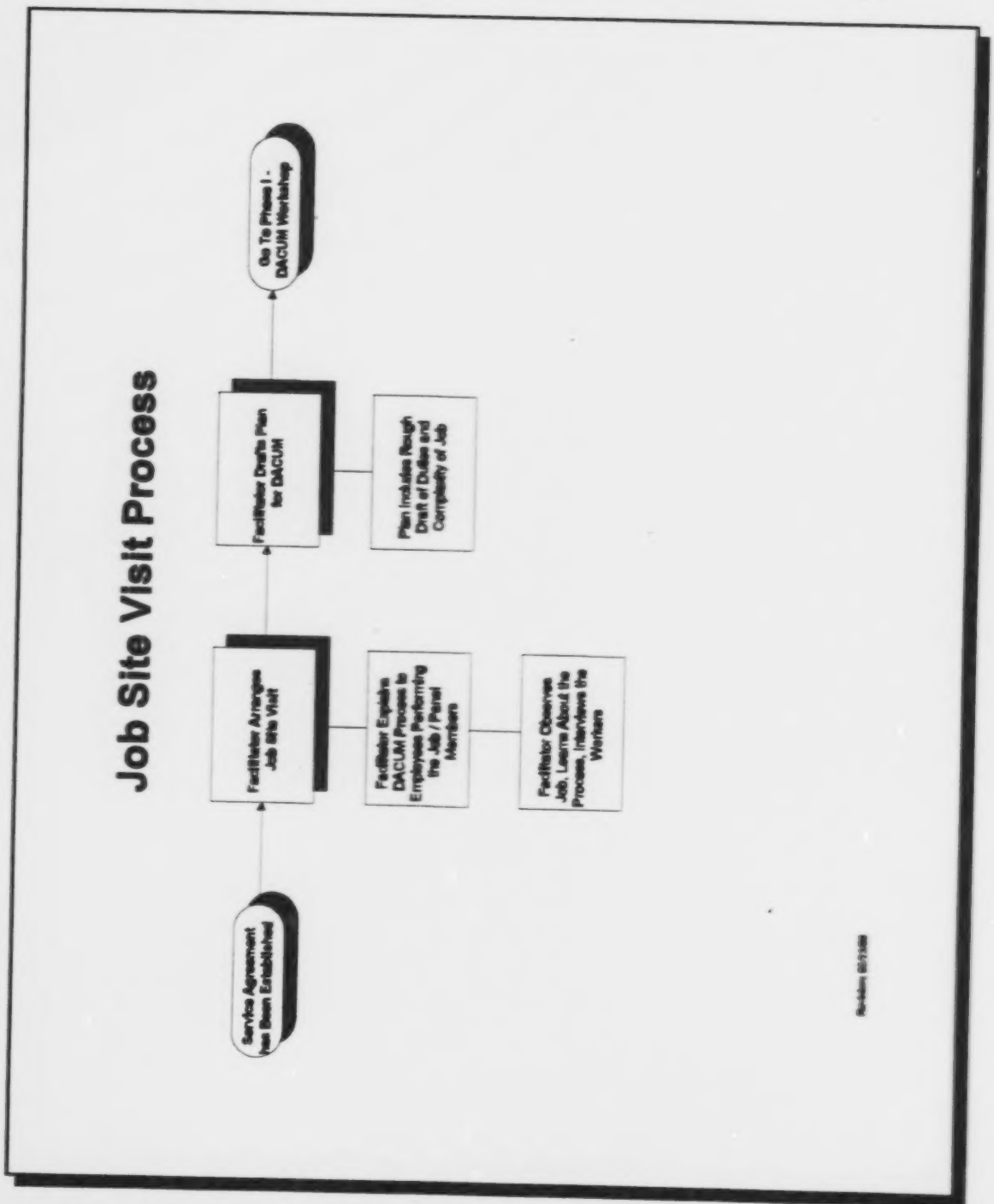
8.0 JOB SITE VISIT

Once the customer service agreement has been developed and signed, a job visit is required. Flow chart 8.A, page 23 depicts the job visit process. The purpose of the visit is to provide the opportunity for the Level 1 Facilitator(s) to gain a little knowledge about the job, gain familiarity with the operations (equipment, terminology, etc.), and provide a brief overview of the DACUM workshop to the employees involved.

The Facilitator(s) notes any concerns, false expectations or impressions brought up by the employees and ensures that the sponsor clarifies and addresses them prior to the workshop. With the information gathered with regard to the job, the facilitator drafts up a plan that identifies potential duties to use as a guide in the workshop. The template shown in Appendix E, page 52 could be used as a guide to ensure consistency among similar jobs.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Chart 8.A - Job Site Visit Process


Job Site Visit Process
Service Agreement Has Been Established
Facilitator Arranges Job Site Visit
Facilitator Explains DACUM Process to Employees Performing the Job / Panel Members
Facilitator Observes Job, Learns About the Process, Interviews the Workers
Facilitator Drafts Plan for DACUM
Plan Includes Rough Draft of Duties and Complexity of Job
Go To Phase I - DACUM Workshop

BEST COPY AVAILABLE

Copyright © Dofasco Inc. 1995 . All Rights Reserved

9.0 PHASE 1: DACUM WORKSHOP

The DACUM workshop is ready to be scheduled. The Level 3 Facilitator selects the facilitation team which consists of a Level 1 Facilitator *(see section 13.2.1, page 38)* and Recorder to conduct the workshop. Flow diagrams 9.A, page 28 and 9.B, page 29 define the two-day workshop process. The panel is selected based on the criteria defined below in section 9.1. The panel is briefed on the process, facilities are arranged, and the workshop is conducted as per the guidelines stated in section 9.2.

In order to ensure some consistently across the organization, the facilitator refers to the plan drafted during the job visit and the duty template found in Appendix E page 52. This template provides a guide for wording duties that are common in similar jobs across the organization.

After the workshop is complete, the Level 1 Facilitator generates the DACUM profile based on the guidelines defined in section 9.3, page 26 and prepares for the validation phase of the process.

9.1 Criteria for Panel Selection

The DACUM panel should consist of individuals who:

1. Are considered by supervision and fellow workers to be experts in their field.
2. Enjoy group sessions and have good oral communication skills.
3. Enjoy teamwork and a consensus approach towards decision making.
4. Are currently performing the job and have several years experience on the job.
5. Are willing to take part in the workshop.

9.2 Guidelines for Running a DACUM Workshop

1. Start with an organizational chart listing a maximum of 3 levels of management.
2. Avoid writing new a rating number on top of an old number.
3. Determine the level of task detail required and avoid getting into too much - strive for quality not quantity.
4. Ensure that each task results in a product, service, decision.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

5. Validate that you have task statements by asking the panel to describe the procedure required to perform the task.

6. Ask the following questions for operations jobs:

   Safety
   - What is your role with safety contacts? (Develop, administer, file)
   - Do you perform safety of the workplace inspections?
   - Do you generate WHMIS labels?
   - Do you perform fire-watch?

   General
   - Do you winterize the plant?
   - Do you perform housekeeping duties?
   - Do you generate any reports?
   - Do you order any supplies (using CSM system, or manually)?
   - Do you change printer cartridges, pens, paper rolls etc.?
   - Do you train new employees (on the job or formally in class)?

7. Ask administrative jobs if they perform fire-warden responsibilities.

8. When developing the general knowledge, skills, tools etc. charts:

   Behaviours, Attitudes & Traits: Do not use physically fit - have them explain ie must lift 100 lbs., must climb stairs, etc. Do not use must be literate - instead use good oral and writing skills.

   Skills & Knowledge: Commonly used phrases, training programs
   WHMIS = Workplace Hazardous Materials Information System
   OE Training = Occupational Environment training
   RCM = Reliability Centred Maintenance
   SPC = Statistical Process Control
   Juran = Quality Improvement, Planning & Control Training
   Pecos = Team building training
   Process Knowledge
   CSM = Central Stores systems
   SOP = Standard Operating Procedures

   Tools, Equipment, Supplies: Commonly used phrases and equipment
   Personal Safety Equipment = work boots, hard hat, safety glasses, ear plugs
   Personal Desk Supplies = pens, stapler, scissors, rulers, paper, etc.

   Future Trends: Capture specific things not general ie. instead of increased technology ask what specifically such as new rolls, new MMI computer

Copyright © Dofasco Inc. 1995, All Rights Reserved

system etc.

9. Common used task statements:
Provide on the job training to new employees
Perform safety of the workplace inspections
Perform fire-warden function
Perform fire-watch

10. Facilitator's Responsibilities:
Maintain confidentiality
Maintain an open, non-hostile, comfortable environment
Take a sincere interest in the panel's job
Use phrases such as: "What else do you do? Have we captured everything you do in this duty?" instead of, "Is that it? Is that all you do?"
Be more passive the first day and work toward being more assertive on the second day.
Be a positive role model for panel (have respect for the panel and their job).

11. The DACUM profile will be electronically generated within 48 hours after the workshop and validation session.

9.3 DACUM Profile Quality Criteria

All DACUM profile charts will be evaluated based on the following criteria:

1. One verb per task and duty statement.

2. The verb used to define the duty statement should not be used in the task statements.

3. Ensure verbs are used properly. Big verbs for duty statements, moderate verbs for task statements, and small verbs for step statements (refer to verb document - "A Word to the Why's, A DACUM Verb List" by Dr. John Hart).

4. Each task statement must concisely describe a product, service, or decision.

5. Each profile will consist of an organizational chart, duty statements, task statements, behaviours/attitudes/traits chart, skills and knowledge chart, tools/equipment/supplies chart/ future trends chart, and each task will be rated on frequency, criticality, and difficulty to learn.

6. Future trends will not represent a wish list. They must be linked into a product or

Copyright © Dofasco Inc. 1995 , All Rights Reserved

initiative that will allow you to know when it has taken place.

7. No task statements will be duplicated unless the procedure is different in which case the statements will be distinguished by a qualifier.

8. Based on the "DACUM Handbook" by Dr. R. Norton, each task should:
   - Stand alone
   - Be performed independent of other work
   - Be observable / measurable
   - Clearly describe the task
   - Worded in the language of the workers
   - Have a beginning and end
   - Be assignable

9. The profile should consist of four or more duties with no less than four tasks per duty. On average the profile should consist of seven duties and six or more tasks per duty.

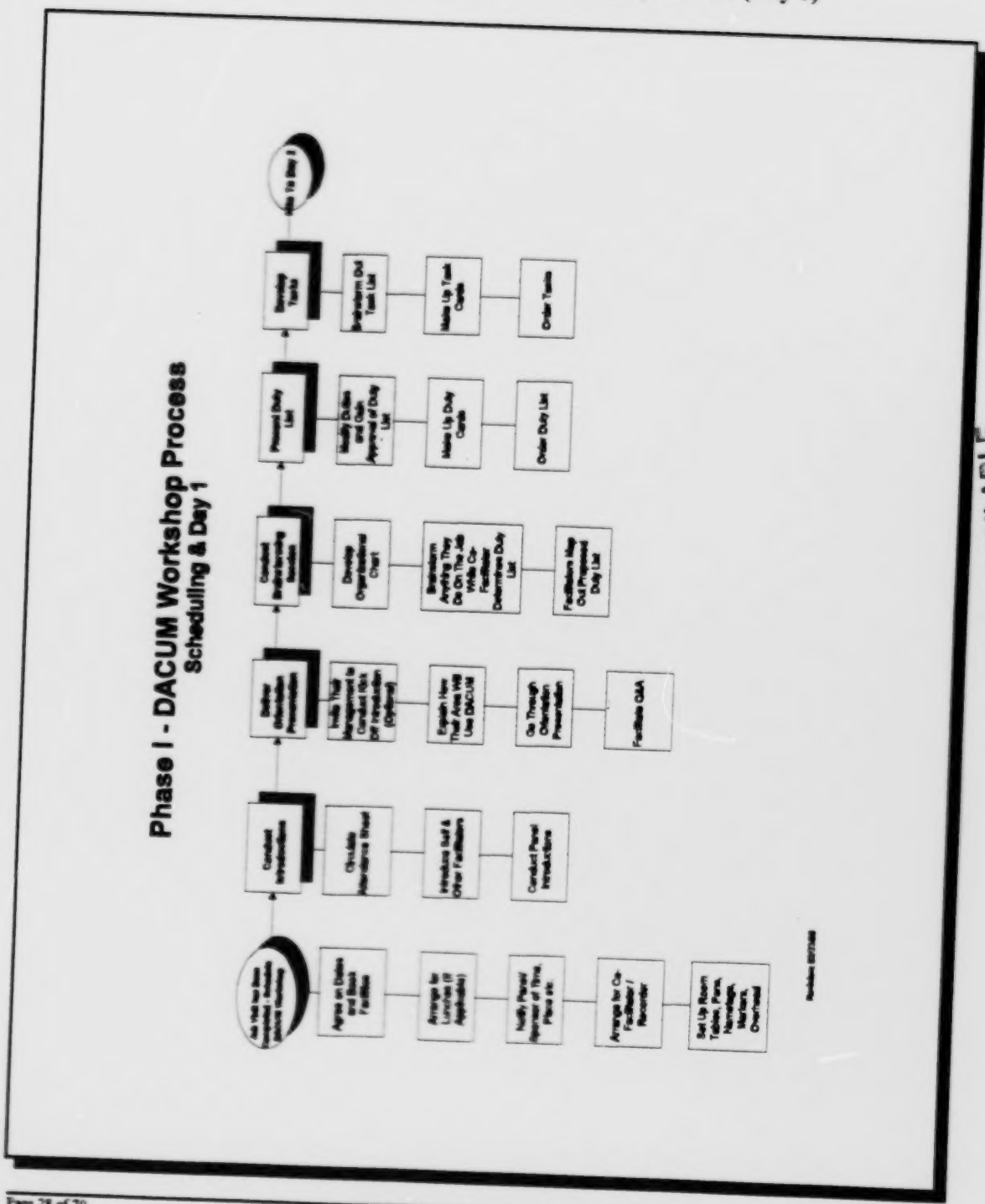
10. All abbreviations and acronyms must be written out in full.

11. The profile must be gender neutral.

12. The DACUM profile will be generated electronically using a minimum 10 point pitch in times roman or universal font. It will contain the date of the workshop, duties and tasks, ratings of each task and product calculations, an alpha numeric task code, behaviours, skills, tools, future trends, panel member names, facilitator(s)/recorder names, sponsor name, revision date, computer file name, approval to copy, job title, department, area, organizational chart, and task priority rating chart.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Chart 9.A - Phase 1: DACUM Workshop Process (Day 1)


Phase I - DACUM Workshop Process
Scheduling & Day 1
Develop Tasks
Breakdown Duty Task List
Make Up Task Cards
Order Tasks
Proposed Duty List
Make Up Duty Cards
Order Duty List
Develop Organizational Chart
Breakdown Showing Tasks Performed
Facilitators Map Out Proposed Duty List
Explain How That Area Will Use DACUM
Go Through Orientation Presentation
Facilitate Q&A
Conduct Introductions
Introduce Self & Other Facilitators
Conduct Panel Introductions
Agree on Dates and Book Facilities
Arrange for Co-Facilitator / Recorder
Set Up Room Tables, Pens, Nametags, Markers, Overhead

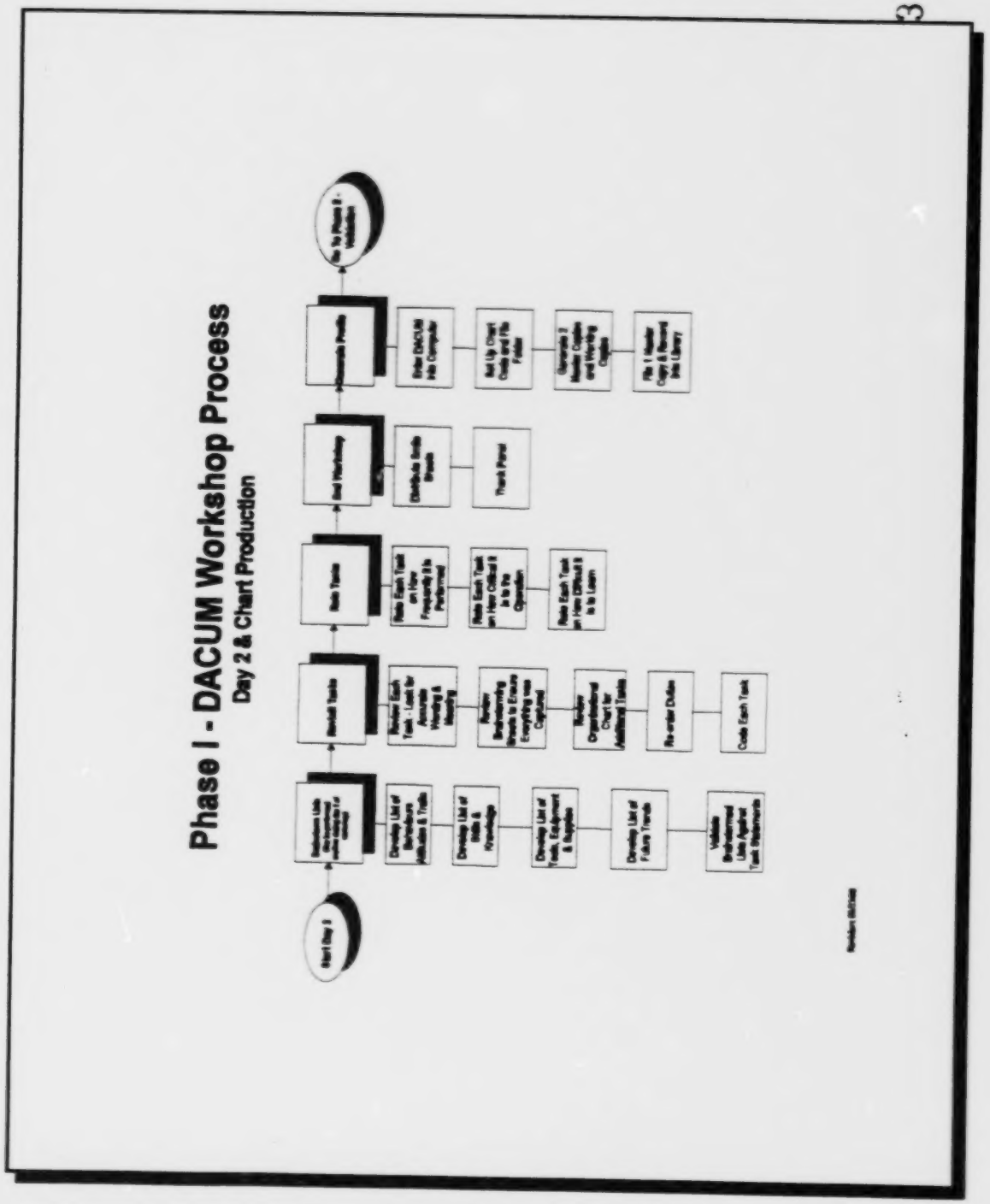
33

32

BEST COPY AVAILABLE

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Chart 9.B - Phase 1: DACUM Workshop Process (Day 2)



BEST COPY AVAILABLE

Copyright © Dofasco Inc. 1995 , All Rights Reserved

10.0 PHASE 2: VALIDATION

The DACUM profile is generated and sent out into the operations for review by all stakeholders for a three week period. Stakeholders include customers, co-workers, management, suppliers, and the panel members. During the validation stage, stakeholders are looking for inaccuracies, omissions, and incoherent task statements. Stakeholders are to review the profile and provide written feedback to the sponsor. Flow chart 10.A on page 31 describes the validation process.

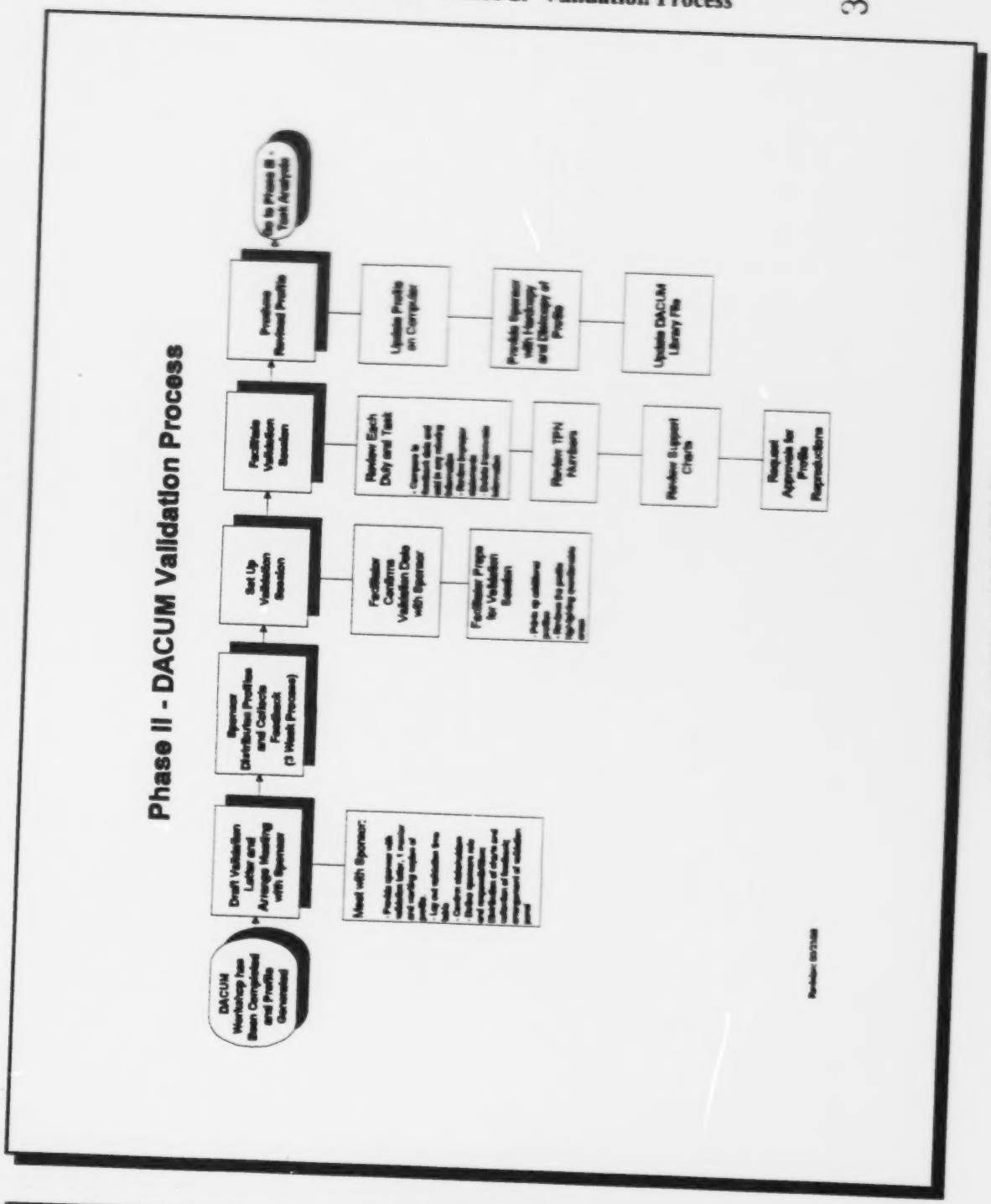
The Level 1 Facilitator monitors the three week validation process and schedules the validation session to take place in the fourth or fifth week. The validation session is a half day session with the sponsor, original panel members, supervisors, and other co-workers performing the job participating. The Facilitator revisits each duty and task statement and using the feedback obtained from the stakeholders, the group makes the appropriate changes to the profile.

The facilitator then generates the validated profile along with a task priority list and delivers it back to the sponsor. An example of the DACUM profile, validation letter, and task priority list can be seen in Appendix F, page 53.

Copyright © Dofasco Inc. 1995, All Rights Reserved

Chart 10.A - Phase 2: Validation Process

33


Phase II - DACUM Validation Process
DACUM Workshop has Been Completed and Profile Generated
Draft Validation Letter and Arrange Meeting with Sponsor
Meet with Sponsor:
Sponsor Distribution Profiles and Collects Feedback (3 Week Process)
Set Up Validation Session
Facilitator Confirms Validation Date with Sponsor
Facilitator Preps for Validation Session
Facilitate Validation Session
Review Each Duty and Task
Review TPN Numbers
Review Support Charts
Request Approvals for Profile Reproductions
Produce Revised Profile
Update Profile on Computer
Provide Sponsor with Hardcopy and Diskcopy of Profile
Update DACUM Library File
Go to Phase III - Task Analysis

BEST COPY AVAILABLE

Copyright © Dofasco Inc. 1995 , All Rights Reserved

37

11.0 PHASE 3: TASK ANALYSIS

Level 2 Facilitators conduct the task analysis by providing training and support to the designated analysts who will be responsible for generating one or more of the products listed below. Flow chart 11.A page 34, defines the task analysis process and results in one or more of the following products or end uses:

1. Development of Standard Operating Procedures and Job Aids
2. Development of Training Programs
3. Development of Performance Standards and Competency Evaluations
4. Job Re-Engineering and Job Comparison
5. Development of a Job Description

11.1 Development of Standard Operating Procedures and Job Aids

In order to develop standard operating procedures or job aids the tasks are analyzed in the order they appear on the task priority sheet. This ensures that the most critical tasks are analyzed first. The tasks are analyzed using the task analysis work-sheet shown in Appendix G page 60, and then each step of the task is flow charted out. The flow charting process clearly identifies all required decisions and prerequisite skills and knowledge required in order to perform the task.

These flow charts can now be incorporated into Standard Operating Procedures or developed into Job Aids. On average it takes one-full-time-equivalent five to eight months to analyze one profile to the required level of detail needed to produce Standard Operating Procedures or Job Aids. Flow charting procedures are defined in the Quality Tools manual Flow Charting section and the corporate standard format for generating standard operating procedures can be found in the 'Procedure for the Management and Control of Documents' manual in Quality Systems.

11.2 Development of Training Programs

In order to develop the DACUM profile into a full training program, it would require one-full-time-equivalent an average of eight to twelve months. The process would entail the breaking out of each task into step by step procedures identifying all the required decisions, cues, tools, skills, knowledge, and safety components that enable the proper execution of the task. This information would be gathered and developed into a learning guide for the purpose of training and evaluating.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

11.3 Job Re-Engineering and Job Comparison

To re-engineer a job, the tasks in the profile are analyzed using the work-sheet shown in Appendix H on page 62. The tasks are identified as high value added, low value added, not required, and duplicated by another job. Those tasks that are marked as low value added and no longer required are either redesigned or eliminated from the job. Tasks that are found to be duplicated by other job are re-assigned to the job that they give the most value to.

On average it takes one-full-time-equivalent two to six months to complete the re-engineering task analysis.

Job comparisons are conducted by doing a DACUM on each job and then looking for duplications between them. The goal is to ensure efficient work flow from one job to the next. This analysis is conducted by developing work flow-charts which link the tasks across the jobs. Once this is complete the next step is to re-engineer the jobs.

It takes approximately six to eight weeks for one-full-time-equivalent to conduct a job comparison task analysis.

11.4 Development of Performance Standards and Competency Evaluations

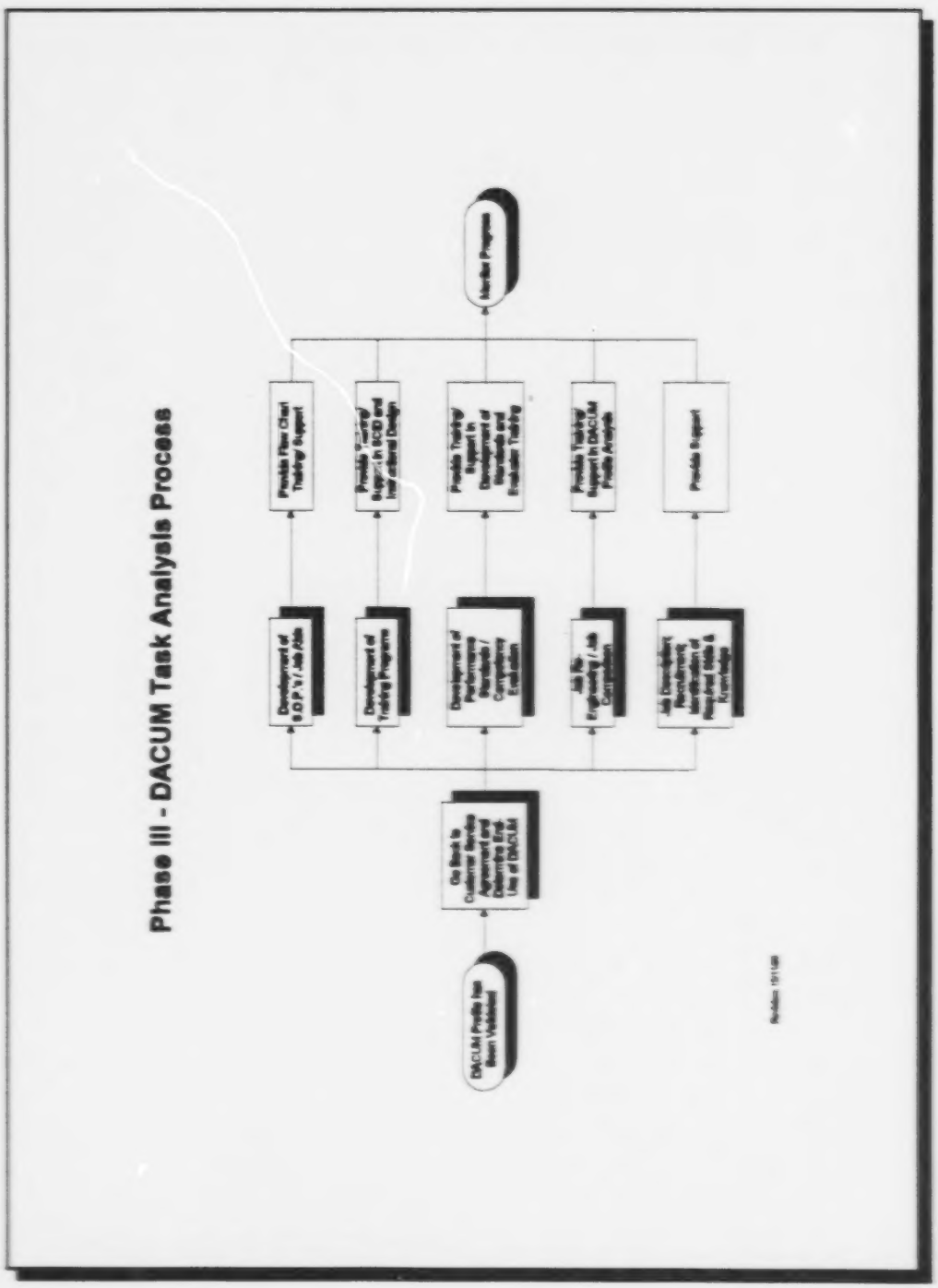
To develop performance standards each task would be analyzed using template in Appendix I, page 64. This template would identify all the elements within the task that are key to determining that the task has been performed correctly. Once these elements have been identified, they make up the standard by which to evaluate the employee against. On average it would take one-full-time-equivalent six to eight weeks to define the performance standards and three to six months to develop the evaluation process.

11.5 Development of a Job Description

To develop a job description it requires the basic definition of the job through conducting the two-day DACUM workshop and validation of the profile. This requires a total of four to six weeks to complete. Skills and knowledge are also defined through the process of developing the profile.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Chart 11.A - Phase 3: Task Analysis Process


Phase III - DACUM Task Analysis Process
Monitor Progress
Provide Flow Chart Training Support
Provide Training/ Support in SCID and Instructional Design
Provide Training/ Support in Development of Standards and Evaluator Training
Provide Training/ Support in DACUM Profile Analysis
Provide Support
Development of S.O.P.'s / Job Aids
Development of Training Programs
Development of Performance Standards / Competency Evaluation
Job Re-Engineering / Job Conversion
Job Description, Development, Identification of Required Skills & Knowledge
Go Back to Customer Service Agreement and Determine End Use of DACUM
DACUM Profile Has Been Validated

BEST COPY AVAILABLE

Copyright © Dofasco Inc. 1995 . All Rights Reserved

12.0 EVALUATIONS AND AUDITS

Each DACUM workshop is evaluated on its effectiveness. Changes are made accordingly to ensure effectiveness. The customer service agreement is audited to ensure the contract has been fulfilled. Flow diagram 12.A on page 37, describes the audit process.

12.1 Evaluations

Each DACUM workshop will be evaluated using the Level I evaluation system (smile sheet).

12.1.1 Purpose of Level 1 Evaluation

Level 1 evaluation provides immediate feedback on issues or concerns that are usually easy to fix such as: room temperature, few breaks, difficulties encountered by the participants, facilitator's inability to deal with disruptive behaviour, etc.

The evaluation instrument is a questionnaire *(example can be found in Appendix J on page 66)* that will be distributed to the panel at the end of each workshop enabling them to state their satisfaction/dissatisfaction with the session or facilitator(s).

12.1.2 Responsibility

It is the responsibility of the DACUM workshop Level 1 Facilitator to distribute the questionnaire to the participants. The Level 3 Facilitator is responsible for analyzing, and making improvements to the process based on the feedback.

12.1.3 Data Collection Process

The questionnaires will be collected and reviewed after each workshop. Feedback that promotes improvement will be assessed and effective interventions instituted. Further monitoring through level 1 evaluation will continue to ensure the interventions have been successful.

12.2 Conducting Audits

Audits will be conducted within two to twelve months after the completion of four DACUM workshops. Audits will be conducted using the check-sheet in Appendix K, page 67.

Copyright © Dofasco Inc. 1995, All Rights Reserved

12.2.1 Purpose of Audits

The main purpose for conducting an audit is to evaluate whether the DACUM process is being followed in accordance with the customer service agreement and to determine if the expected results have been achieved.

12.2.2 Responsibility

It will be the responsibility of an impartial Level 3 Facilitator to conduct the audit two to twelve months after the contracted four DACUM workshops have been completed. The audit will consist of collecting data to evaluate compliance with the service agreement, achievement of desired outcomes, roadblocks, and continuation of the process.

12.2.3 Audit Criteria

The audit instrument is a check sheet focusing on the following categories:

- Effective use of DACUM's
- Results obtained
- Resource commitment
- Additional training and consulting needs
- Constraints and weaknesses

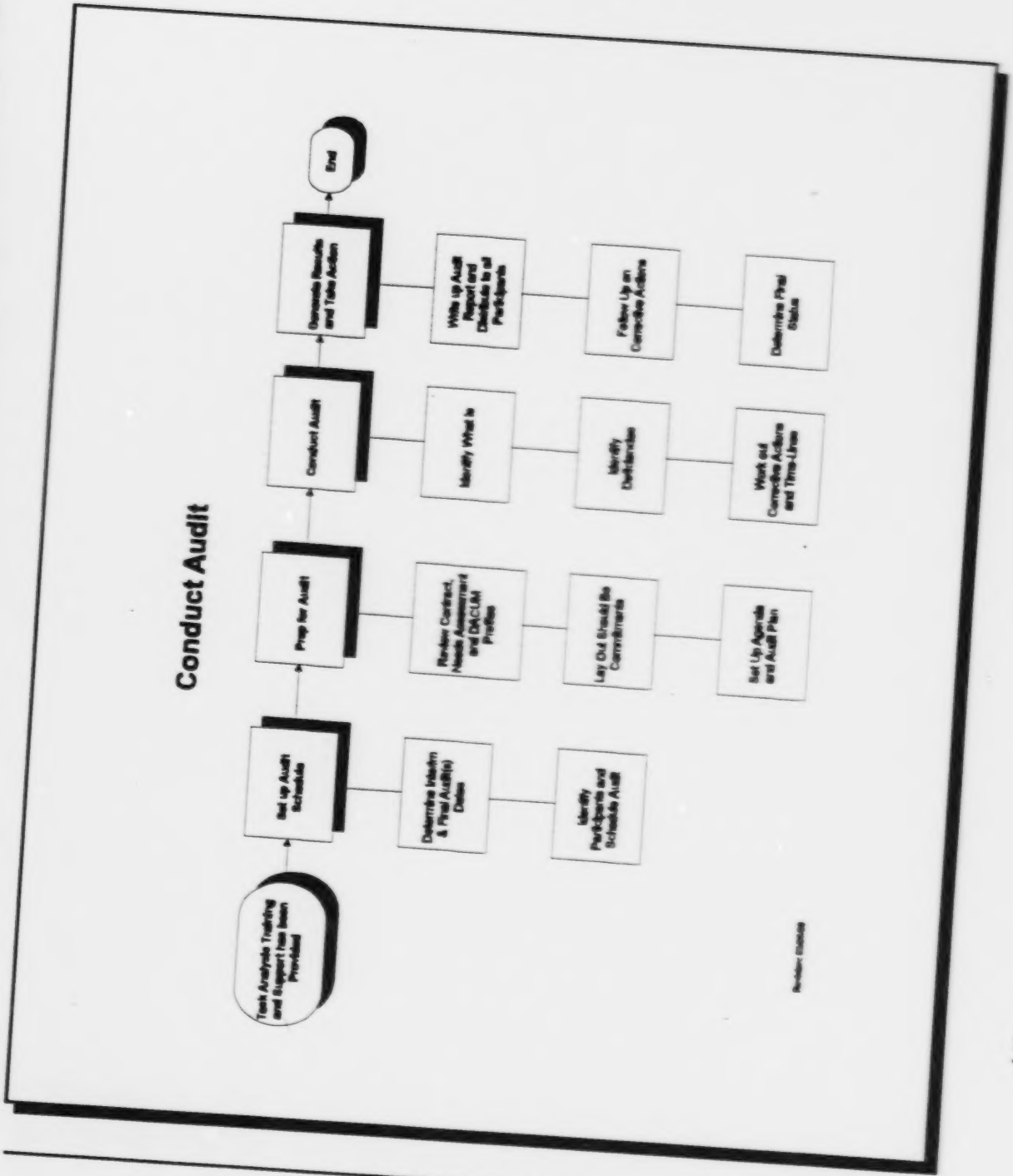
12.2.4 Providing Feedback

The Facilitator(s) conducting the audit will provide immediate feedback to the area after the assessment. A copy of the assessment document will be given to the sponsor and the original will be kept on file with the Facilitator who established the contract.

Through the audit, non conformance issues will be identified and reasonable deadlines set for corrective actions before further work will continue in that area. Another audit will be conducted prior to resuming work to ensure the problems have been resolved.

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Chart 12.A - Audit Process


Conduct Audit
Task Analysis Training and Support has been Provided
Set up Audit Schedule
Determine Interim & Final Audit(s) Dates
Identify Participants and Schedule Audit
Prep for Audit
Review Contract, Needs Assessment and DACUM Profiles
Lay Out Should-Be Commitments
Set Up Agenda and Audit Plan
Conduct Audit
Identify What is
Identify Deficiencies
Work out Corrective Actions and Time-Lines
Generate Results and Take Action
Write up Audit Report and Distribute to all Participants
Follow Up on Corrective Actions
Determine Final Status
End

BEST COPY AVAILABLE

Copyright © Dofasco Inc. 1995 . All Rights Reserved

13.0 DACUM FACILITATOR DEVELOPMENT PROCESS

DACUM Facilitators will be developed following a three level developmental process defined in this section. Yearly evaluations will be conducted by Level 3 Facilitators to ensure all the Facilitators are properly trained and follow the DACUM process defined in this document.

13.1 Criteria for Selection

When selecting DACUM Facilitator candidates the following criteria should be used. The candidate should have the following prerequisite skills:

- Training and experience in facilitation
- Background in training
- Analytical skills
- English language skills
- Oral communication skills
- Conflict resolution skills
- PC skills
- Interpersonal skills

13.2 Facilitator Development

The 3 level Facilitator development process ensures that new Facilitators gain experience while learning by applying new learned skills immediately to the job.

13.2.1 Level 1 Facilitator Development

Qualified novice Facilitators will start from point 0 and by the end of Level 1 development they will be able to record at DACUM workshops, facilitate DACUM workshops, conduct job site visits, produce DACUM charts, and facilitate validation sessions.

Criteria

Record at Workshops:

- Accurately per facilitators instructions
- Clearly and legibly
- Refrains from providing input into session
- Records at a minimum of 3 workshops under the direction of 2 different Facilitators

Copyright © Dofasco Inc. 1995, All Rights Reserved

Facilitate Workshops:

- Has recorded at 3 workshops
- Conducts brainstorming session to define the job
- Delivers orientation presentation
- Conducts brainstorming session to develop attribute lists
- Conducts rating sessions
- Assesses and develops duty list
- Breaks out simple duty bands
- Conducts review process
- Breaks out difficult duty bands
- Co-facilitates a minimum of 3 workshops
- Attends training at Ohio State University
- Facilitates workshop on own

Conduct Job Visit:

- As per section 8.0 page 22
- Uses good questioning techniques
- Develops familiarity of job
- Develops plan of potential duties

Generate Chart:

- Electronically on standard software as per section 14.0 page 42
- Produces chart within 48 hours after last day of workshop
- Delivers chart to sponsor and preps sponsor for validation

Facilitate Validation:

- Sets up validation session
- Preps for validation
- Reviews feedback
- Facilitates session
- Produces revised chart within 48 hours after the session

13.2.2 Level 2 Facilitator Development

By the end of Level 2 development, qualified Level 1 Facilitators will be able to provide full consulting, task analysis training, and support services.

Criteria

Provide Consulting Services:

- Advises and makes recommendations on course of action

Provide Task Analysis Training:

- Learns flow charting, SCID, profile analysis, development of standards, and job re-engineering techniques

Copyright © Dofasco Inc. 1995, All Rights Reserved

- Trains the tasks analysts

Provide Support Services:
- Monitors progress of task analyst(s)
- Provides additional training, coaching, and support when required

13.2.3 Level 3 Facilitator Development

By the end of Level 3 development, qualified Level 2 Facilitators will be able to provide information sessions, conduct needs assessments , establish priorities, develop customer/supplier agreements, and conduct audits.

Criteria

Conduct Information Sessions:
- As per section 3.1 page 9
- Answers all questions with regard to the process
- Provides accurate information
- Develops open honest rapport

Conduct Needs Assessments:
- As per section 5.0 page 12
- Gains good understanding of customers needs

Establish Priorities:
- As per section 6.0 page 14
- Determines priority accurately and rationally

Develop Service Agreements:
- As per section 7.0 page 20

Conduct Audits:
- As per section 12.0 page 35
- Remains impartial
- Accurately identifies non-conformances
- Provides clear feedback and ensures understanding
- Works with area to develop reasonable time-lines and solutions
- Monitor progress and conducts re-assessments

13.3 Facilitator Evaluation

Once completing each level of the Facilitator Development program, newly trained Level 1 and 2 Facilitators will be evaluated on a regular basis - once out of every three DACUM workshops conducted for a total of four evaluations (during twelve workshops

Copyright © Dofasco Inc. 1995 , All Rights Reserved

facilitated). This will taper off to two evaluations per twelve workshops and down to regular yearly evaluation.

Newly trained Level 3 Facilitators will be evaluated on each step of the process (excluding the 3 Phase DACUM processes) a total of three times during the first year. This will taper off to once a year after the successful of completion of year one assessments.

The audits will be conducted by experienced Level 3 Facilitators using the check-sheet in Appendix L page 69.

Copyright © Dofasco Inc. 1995, All Rights Reserved

14.0 RECORD KEEPING AND TRACKING

All generated DACUM profiles are stored electronically in a DACUM library *(see section 14.1 below)* within the DIS (DACUM Information System) software. Hard copies are stored by the Level 3 Facilitator responsible for those profiles. Rights are assigned based on each situation and access requirements.

14.1 Software

The software used to generate the DACUM profiles will be DIS version 1.0 by Archway Computer Systems. The software was evaluated to ensure that it meets the criteria described below in section 14.2. This software is used by all Facilitators to generate and track the DACUM profiles.

14.2 Software Criteria

1. Can be loaded on any IBM compatible PC within Dofasco. Does not require any special hardware/software needs other than those that are corporate standard.

2. Easy editing features such as: moving data; inserting new duties/tasks; re-numbering; deleting duties/tasks.

3. Search/query features such as: field searches; key word/phrase search; querying on skills, tools, and knowledge fields.

4. Variable print features such as: various size formats ie. portrait, landscape, legal, letter; individual duty bands.

5. Calculation features such as: calculation of TPN's; generating task priority lists; assigning task codes.

6. Spell check capabilities.

7. Builds library listings that list all the DACUM's and their status.

8. Contains security levels such as: read only for basic users; read write for developers; viewing privileges.

9. Fields for demographic information such as: sponsor; Department/Business Unit name; area; Facilitator, panel members; approval to copy; status; end use; job

Copyright © Dofasco Inc. 1995, All Rights Reserved

code.

10. Program must be user friendly and work in a network windows environment.

14.3 Additional Software Options

- Fields on chart consists of:
  - Issue date
  - Revision date
  - Validation date
  - Workshop date(s)
  - Chart code
  - Approval to copy Y/N
- Option on draft copy of additional blank boxes or rows for validation
- Option of various types of Task Priority Charts ie. sort by task priority number; sort by criticality then by task priority number.
- Duties bolded
- Total number of tasks and duties

Copyright © Dofasco Inc. 1995 , All Rights Reserved

15.0 REFERENCES

"A Word to the Why's: A DACUM Verb List" by Dr. John Hart - Humber College

DACUM Handbook by Dr. Robert Norton - Ohio State University

Flow Charting - Quality Tools by Quality Systems - Dofasco

Procedure for the Management and Control of Documents - QS-6955-001 revision 01 Oct. 1995

Copyright © Dofasco Inc. 1995, All Rights Reserved

16.0 REVISION HISTORY

Issued: **December 6, 1995**

Revised: **October 18, 1996**

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX A: DACUM INFORMATION PAMPHLET

THE DACUM APPROACH TO OCCUPATIONAL ANALYSIS

DACUM is a job analysis tool. Its purpose is to develop a competency profile for a job by identifying all the duties, tasks, skills, knowledge and tools required to perform that job competently. This competency profile serves as the foundation for various outputs ranging from the development of training programs to the development of operating procedures for quality initiatives.

DACUM is an effective method of job analysis data collection. Through a unique method of group consensus facilitation, a comprehensive profile (graphical representation) of a job is developed. The profile can be used for a variety of products ranging from the development of job descriptions to complete training programs.

The DACUM process consists of three phases: During **Phase I** a certified DACUM Facilitator conducts a two-day workshop with a panel of subject matter experts (usually 6 to 8). Their task is to identify, in performance terms, major duties and tasks that a worker must be able to perform. **Phase II** is the three-week validation process where the profile is validated by all the stakeholders and revised based on their feedback. **Phase III** is the task analysis stage that analyses the profile and uses the information to develop the required end use.

The **DACUM** approach is based upon three critical beliefs:

- Expert workers are better able to describe/define their occupation than anyone else.
- Any job can be effectively and sufficiently described in terms of observable, measurable performances (tasks) successful workers in that job perform.
- All tasks performed have direct implications to the knowledge and attitudes that workers must demonstrate to perform the tasks correctly.

The completed profile is captured in chart form and represents a competency profile of the job performed.

DACUM END USES & BENEFITS

The competency profile may be used for:

- Creating **job descriptions** for new or emerging jobs.
- **Updating existing** job descriptions.
- Developing **performance standards** and **competency evaluations**.
- **Comparing / re-engineering** jobs
- Designing **new training programs** quickly and cost-effectively.
- Assessing and **validating the appropriateness of existing training** programs.
- **Reducing costs and start-up time** for design and delivery of training programs.
- Developing **standard operating procedures** and **job aids**.
- Increasing the **participation of employees** in development of training.
- **Prioritizing training**
- Identifying **skills and knowledge required** for recruitment purposes.

WHAT IS REQUIRED OF THE DACUM CLIENT

If you are considering requesting a DACUM job analysis there are a number of factors you should consider.

An individual will be required to act as a **Sponsor** for the DACUM process. This individual will be responsible for:

- **Overseeing the process to ensure time-lines are met.**
- **Providing 6 to 8 individuals for two consecutive days to form a panel.**

The DACUM panel should

Copyright © Dofasco Inc. 1995 , All Rights Reserved

consist of individuals who:

- are considered by supervision and fellow workers to be experts in their field.
- enjoy group sessions and have good oral communication skills.
- enjoy team work and a consensus approach towards decision making.
- preferably have several years experience at the job being analyzed and who are currently performing the job.

- **Coordinating the validation of the completed profile.**
  The sponsor will be responsible for:
  - validating the DACUM chart with all stakeholders
  - ensuring that all concerns are returned to panel members
  - reviewing information with panel members

- **Ensuring required follow-up activities are carried out.**

TASK ANALYSIS AND DEVELOPMENT OF TRAINING PROGRAMS

Depending on the end use several alternatives methods for task evaluation and development of training material may be applied.

Your DACUM Facilitator can provide you with more details on available training for:

- **Development of *Performance Standards***
- **Development of *Learning Objectives***
- **Development of *Learning Guides***
- **Development of *Standard Operating Procedures***
- **The use of flow-charting in developing *Job Aids***
- **The use of standard operating procedures in *Curriculum and Instructional Development***
- **Establishing a *Departmental Training Program***

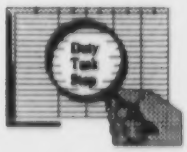
For Information on DACUM Occupational Analysis and Task Analysis or for a presentation on how the process works contact:

Krystyna McLennan
Training Department
Human Resources
D.F. Hassel Centre
Phone: 548-7105
Fax: 548-4311

Stan White
Training Department
Human Resources
Training & Development Centre
925 Century Drive,
Burlington
Phone: 632-6903
Fax: 639-6275

Mike Zagorac
Training Department
Human Resources
Training and Development Centre
925 Century Drive,
Burlington
Phone: 632-5126
Fax: 639-6275

Rev 01/17/96



The DACUM Approach to Occupational Analysis

DOFASCO

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX B: DACUM NEEDS ASSESSMENT FORM

DACUM Needs Assessment
Rev. 01/10/96

Date of Assessment: _____ Dept./B.U.: _____
Participants: _____ Analyst: _____
_____ Request #: _____
_____
_____

1. What is the customers purpose for using DACUM?
   - ❑ Safety / Environment / Legislation
     ie. Increase in number of accidents due to inconsistent practices? 'Increase in severity of accidents? Equity?
   - ❑ Quality / Productivity / Efficiency
     ie. Standardize procedures? Poor efficiency (duplication of responsibility)?
   - ❑ Human Resource Issues
     ie. Development of personnel? Substantial staffing change?
   - ❑ Other _____

2. What is the desired outcome (product) the customer needs?
   - ❑ Job definition
   - ❑ Develop training programs
   - ❑ Validate existing training programs
   - ❑ Job re-engineering
   - ❑ Develop job aids
   - ❑ Develop standard operating procedures (S.O.P.'s)
   - ❑ Define required skills and knowledge
   - ❑ Develop performance standards
   - ❑ Competency evaluations
   - ❑ Other _____

3. Have they been involved in the DACUM process previously?
   ❑Yes ❑No

4. What is the customer's commitment and resource availability?
   - ❑Yes ❑No Can they provide a sponsor?
   - ❑Yes ❑No Can they provide a sufficient panel?
   - ❑Yes ❑No Can they provide a full time task analyst(s)?
   - ❑Yes ❑No Do they have the required resources to carry out the full task analysis?

   Comments _____

5. What are the expected deadlines and time-lines?

Copyright © Dofasco Inc. 1995 , All Rights Reserved

What are the areas within the Department/B.U. that will be involved?

1. _____
2. _____
3. _____
4. _____

How many jobs within each area are to be analyzed?

1. _____ # Jobs: _____
2. _____ # Jobs: _____
3. _____ # Jobs: _____
4. _____ # Jobs: _____

What is the expected start date? _____

Panels can be provided:

- ❑ Weekly
- ❑ Bi-weekly
- ❑ Monthly
- ❑ Other _____

What is the expected completion date? _____

6. What would be the impact of not doing it?

_____

7. Are there any factors that could prevent the completion of the process?

_____

8. What additional training and support services will be required?

Training:

- ❑ SCID Training Support
- ❑ Flow Charting
- ❑ Standards/Criteria
- ❑ Instructional Design
- ❑ Evaluator Training
- ❑ Profile Analysis
- ❑ Other: _____
- ❑ Consulting
- ❑ Coaching
- ❑ External Support

9. Has the customer tried other interventions?

❑No ❑Yes

Intervention:	Result
_____	_____
_____	_____
_____	_____

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX C: ANALYSIS OF NEEDS ASSESSMENT DATA FORM

Analysis of Needs Analysis Data
Rev. 01/10/96

Request #: _____ Dept./B.U.: _____
Priority Index: _____ Analyst: _____

1. Is this the customers first involvement with DACUM?
   ❑Yes ❑No
   If yes - look for historical data to determine success rate of completion

2. Is the request reasonable?
   ❑Yes ❑No Viable end use
   ❑Yes ❑No Customer's resource availability
   ❑Yes ❑No Time-lines
   ❑Yes ❑No Number of DACUM's requested
   Comments: _____

3. Is DACUM the appropriate intervention?
   ❑Yes ❑No
   Comments: _____

4. Does the customer have all the necessary elements for implementation available?
   ❑Yes ❑No

5. What are the factors that could stop the process?
   _____
   _____
   _____

6. Are there Facilitator(s)/other H.R. resources available?
   ❑Yes ❑No

7. What will the cost be to H.R.?
   _____

8. How much training, support, and consulting services will be required?
   Training requirements: _____
   _____
   _____
   Support/Consulting requirements: _____
   _____
   _____

9. Key resources identified:
   Lead Facilitator: _____
   Sponsor: _____
   Task Analyst(s): _____
   _____
   _____
   _____

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX D: INTERNAL CUSTOMER/SUPPLIER AGREEMENT FORM FOR DACUM ANALYSIS

Internal Customer/Supplier Agreement
Rev. 01/08/96

Dept./B.U. _____ **Area(s):** _____

Reason(s) for Analysis:

- ❑ Define Job
- ❑ Job Re-Engineering
- ❑ Develop Job-Aids
- ❑ Develop Performance Standards
- ❑ Competency Evaluations
- ❑ Develop Training Programs
- ❑ Validate Existing Training Programs
- ❑ Develop Standard Operating Procedures
- ❑ Define Required Skills & Knowledge
- ❑ Other: _____

Total Number of Job's to be Defined: _____

Note: This agreement is valid for a maximum of four jobs to be analyzed. Any additional jobs will be reviewed and approved based on the outcome of this agreement.

Jobs to be Analyzed: 1. _____ 2. _____
3. _____ 4. _____

DACUM Workshop's to be conducted: ❑ Weekly ❑ Bi-Weekly ❑ Monthly ❑ Other: _____

Start Date: _____ Estimated End Date: _____ (For Workshops & Training)

Sponsor: _____ Lead Facilitator: _____

Task Analyst(s): _____

Training/Support Services Required: Estimated Delivery Date:

- ❑ SCID Training _____
- ❑ Flow Charting Training _____
- ❑ Development of Standards/Performance Criteria _____
- ❑ Instructional Design Training _____
- ❑ Evaluator Training _____
- ❑ DACUM Profile Analysis Training _____
- ❑ Consulting Services _____
- ❑ Other: _____

Other Resources: Title: _____ Name: _____
Title: _____ Name: _____
Title: _____ Name: _____
Title: _____ Name: _____

Dept./B.U. Mgr.: _____ Training Mgr: _____
Date: _____ Priority Index _____ Project Plan Ref. #: _____

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX E: DACUM DUTY TEMPLATES

DACUM Duty Templates

Operations	Maintenance	Supervisor	Clerical	Technical/Coordinator
Start Up Line	Prepare the Worksite	Participate in Meetings	Word Process Reports and Correspondence	Manage Projects
Shut Down Line	Inspect Equipment	Evaluate Employees Performance	Maintain File Systems	Participate in Meetings
Troubleshoot Line Problems	Perform Scheduled Maintenance	Approve Purchases	Administer Correspondence	Generate Reports
Inspect Line	Plan Work to be Performed	Develop Budgets	Maintain Records	Deliver Presentations
Maintain Line Operation	Perform Preventative Maintenance	Council Employees	Maintain Supply Inventory	Provide Technical Support
Set Up Line	Troubleshoot Equipment Emergencies	Generate Reports	Provide Logistic Support	Determine Department Requirements
Perform Supervisory Functions	Perform Mechanical Repairs	Deliver Presentations	Provide Clerical Support	Audit Systems / Processes
Maintain Equipment	Perform Electrical Repairs	Determine Workforce Requirements	Maintain Schedules	Develop Systems / Processes
Maintain Product Quality	Maintain Equipment Records	Assess Employees Needs	Coordinate Meetings	Provide Consulting Services
Perform General Tasks	Perform New Equipment Installations	Develop Business Plans	Perform General Tasks	Perform General Tasks
	Perform Equipment Modifications & Redesigns	Evaluate Departments Effectiveness		
	Perform General Tasks	Perform General Tasks		

Rev. 09/08/95

Copyright © Dofasco Inc. 1995 , All Rights Reserved

BEST COPY AVAILABLE

APPENDIX F: DACUM PROFILE, PRIORITY RATING CHART, VALIDATION LETTER

COMPETENCY PROFILE

Quality Systems Administrator - Quality Systems

August 1 & 2, 1996

Vice President / Quality Management Council

General Manager Business Unit Manager's

QUALITY SYSTEMS ADMINISTRATOR

Coordinators Project Managers Task Managers

Quality Systems B/U's/Dept's External Customers External Consultants

Third Party Auditors Technical Service Managers Suppliers

External Organizations (ASQC, AIAG) Benchmarking Organizations SRI Registrar

Supervisors Sponsors Process Owners Product Reps

Copyright © Dofasco Inc. 1995 . All Rights Reserved

COMPETENCY PROFILE FOR QUALITY SYSTEMS ADMINISTRATOR - QUALITY SYSTEMS DOFASCO INC.

MANAGE QUALITY SYSTEMS	Ensure Conformance of Quality Systems to Standards A-1 1 5 4 20	Determine Documentation Needs A-2 1 4 3 12	Develop Quality Policies and Procedures A-3 1 5 4 20	Set Up Documentation Control A-4 1 4 4 16	Set Up Record Control System A-5 1 4 4 16	Ensure Conformance of Documents to Standards A-6 1 4 3 12	Approve Level I and Level II Document Content A-7 2 4 4 32	Roll Out Policies and Procedures A-8 2 5 5 50
	Conduct Management Review Process A-9 3 5 4 60	Implement Action Plan Based on Deficiencies Identified by Management Review A-10 3 5 4 60	Develop Communication Strategy A-11 1 4 4 16	Conduct Communication Sessions A-12 3 4 4 48	Assess Organizational Structure to Meet Resource Requirements A-13 1 5 4 20	Ensure Resources are Trained A-14 1 5 4 20	Facilitate Identification of Tier I and Tier II Suppliers A-15 1 5 5 25	
IMPLEMENT OUTPUTS OF QUALITY PLANNING PROCESS	Translate Customer Needs into Product Control Standards B-1 1 6 5 30	Translate Product Features into Process & Product Controls B-2 1 6 5 30	Analyze F.M.E.A.'s to Identify Critical Process Controls B-3 1 4 6 24	Translate Internal Customer/Supplier Needs into Customer/ Supplier Agreements B-4 1 5 6 30	Review Customer/ Supplier Agreement for Capability/ Feasibility B-5 1 5 4 20	Design Control Systems B-6 1 5 5 25	Publish Control Plans B-7 1 4 3 12	Roll Out Control Plans B-8 1 5 5 25
	Revise Control Plans B-9 2 5 5 50	Inform Stakeholders of Control Plan Changes B-10 2 5 3 30						
MONITOR QUALITY CONTROL PRACTICES	Schedule Performance/ Conformance Reviews C-1 2 5 4 40	Assess Control Charts to Ensure Compliance with Procedures C-2 3 5 4 60	Assess Performance Measures to Ensure Compliance with Plan/ Goals C-3 3 5 4 60	Assess Production Records to Ensure Compliance with Procedures C-4 2 4 3 24	Assess Measurement Systems to Ensure Compliance with Procedures C-5 2 5 6 60	Assess Process/ Product Stability C-6 3 5 5 75	Assess Process/ Product Capability C-7 3 6 5 90	Initiate Corrective Actions to Non-Conformance Issues C-8 3 5 5 75
	Assist in Problem Identification in Cross-Functional Areas C-9 3 5 5 75	Verify Corrective Action Implementation C-10 3 5 4 60	Conduct Employee Interviews to Determine Quality Systems Effectiveness C-11 2 4 3 24					
CONDUCT INTERNAL QUALITY SYSTEM AUDIT	Determine Audit Scope D-1 1 4 4 16	Set Up Audit Plan D-2 1 4 4 16	Select Audit Team D-3 1 4 3 12	Ensure Audit Team is Trained D-4 1 4 3 12	Observe Audit Process D-5 1 4 3 12	Validate Audit Results . D-6 1 4 4 16	Clarify Audit Inconsistencies D-7 1 4 4 16	Make Recommendations Based on Audit Results D-8 1 4 4 16
	Report Audit Results to Management D-9 1 4 4 16	Follow Up on Corrective Actions D-10 1 5 4 20	Maintain Audit Records D-11 1 3 3 9					
CONDUCT ANALYSIS FOR BUSINESS PLAN WITH REGARD TO PRODUCT QUALITY	Analyze Product/ Process Capability E-1 1 6 5 30	Analyze Product Quality Measures E-2 1 6 5 30	Analyze Customer Complaints E-3 2 5 4 40	Conduct External Survey's (Benchmarking) E-4 1 3 4 12	Conduct Gap Analysis E-5 3 6 5 90	Forecast Trends of Customers, Competitors & Technology E-6 1 4 4 16	Conduct Internal Survey's E-7 1 3 3 9	
COORDINATE PROJECTS	Recommend New Projects F-1 1 3 4 12	Recommend Project Scope Changes F-2 1 3 4 12	Assist in Project Prioritization F-3 1 3 3 9	Assist with Establishing Project Goals F-4 1 3 4 12	Assess Overlap of Projects F-5 2 4 4 32	Assess Project Gaps F-6 2 4 4 32	Assess Project Risks F-7 3 4 4 48	

Copyright © Dofasco Inc. 1995 , All Rights Reserved

BEST COPY AVAILABLE

PERFORM GENERAL TASKS	Complete Customer Survey's G-1 2 2 3 12	Provide Training for Team Members, Tasks Managers, & Project Managers G-2 2 4 5 40	Assist in Customer Audits/ Visits G-3 2 3 3 18	Provide Recognition for Achievements G-4 2 3 1 6	Assist with Performance Evaluation of Quality Systems Coordinators G-5 1 3 3 9	Maintain Quality Systems Information Bulletin Boards G-6 3 3 2 18	Schedule Meetings G-7 4 3 3 36	Conduct Meetings G-8 4 3 4 48
	Generate Meeting Minutes G-9 4 4 2 32	Prepare Presentation Material G-10 2 3 4 24	Summarize Customer Survey Results G-11 1 2 2 4	Maintain Job Currency G-12 3 3 3 27				
PARTICIPATE IN EXTERNAL BUSINESS UNIT / SUPPLIER AUDIT	Review Audit Scope and Plan H-1 1 2 3 6	Collect Objective Evidence During Audit H-2 1 4 4 16	Compare Evidence to Audit Criteria H-3 1 4 4 16	Determine Conformance to Standards H-4 1 4 4 16	Document Audit Results H-5 1 4 3 12	Review Findings with Audit Team H-6 1 4 4 16	Assist with Validation and Clarification of Results H-7 1 4 4 16	Assist with Audit Report Preparation & Presentation H-8 1 4 4 16
	Assist with Corrective Actions Verification H-9 1 4 4 16							

Chart Code: Quality Systems (QS-1) Rev. 08/02/96 **Approval to Copy: Yes**

Copyright © Dofasco Inc. 1995 , All Rights Reserved

BEST COPY AVAILABLE

Behaviours, Attitudes, & Traits

Assertive
Professional
Honest
Sense of Humour
Good Listener
Analytical
Organized
Decisive
Self Starter
Motivator
Leader
Diligent
Able to Prioritize
Accountable
Articulate
Enthusiastic
Disciplined
Fun
Tactful
Approachable
Integrity
Good Judgement
Common Sense
Intelligent
Flexible

Skills & Knowledge

Quality Systems Requirements Knowledge
Understanding of Dofasco Processes
Knowledge of Statistics
Knowledge of Audit Processes
Training Knowledge
Knowledge of Dofasco Policies
Effective Meeting Skills
Time Management Skills
Communication Skills
Oral & Written
Analytical Skills
SPC Tools
Computer Skills
Audit Techniques
Project Management Skills
Negotiation Skills
Technical Writing Skills
Supervisory Skills
Presentation Skills
Teaching Skills
Facilitation Skills

Tools, Equipment & Supplies

Telephone
Voice Mail
Computer
Printer
Fax
Photocopier
Personal Desk Supplies
Personal Safety Equipment
Strategic Analyst Software
Anstat Software
SAS Software
TV
VCR
Overhead Projector
Calculator
Quality Planning Manuals
Quality Control Manuals
Quality Improvement Manuals
AIAG Interpretation Manuals
AIAG Manuals

Future Trends

Overlap with Customer Service and Process Owner Jobs
Changes in Quality System Requirements
Potential Interaction with External Core Businesses (Taylor Steel)
Implementation of TQM
ISO 14000

Sponsor:
Ralph Krueger

Panel:
Anka Backman
Dave Ford
Kim Fulcher
Gas Gebara
Ralph Kruger
Art Shaw

Facilitators:
Krystyna McLennan
Brian Jackson

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Task Priority Chart for Competency Profile
Quality Systems Administrator - Quality Systems
Chart Code: QS-1

Criticality 5 or 6	
E-5	90
C-7	90
C-6	75
C-8	75
C-9	75
A-9	60
A-10	60
C-2	60
C-3	60
C-5	60
C-10	60
A-8	50
B-9	50
C-1	40
E-3	40
B-1	30
B-2	30
B-4	30
B-10	30
E-1	30
E-2	30
A-15	25
B-6	25
B-8	25
A-1	20
A-3	20
A-13	20
A-14	20
B-5	20
D-10	20
Total	*30*

Criticality 3 or 4	
A-12	48
F-7	48
G-8	48
G-2	40
G-7	36
A-7	32
F-5	32
F-6	32
G-9	32
G-12	27
B-3	24
C-4	24
C-11	24
G-10	24
G-3	18
G-6	18
A-4	16
A-5	16
A-11	16
D-1	16
D-2	16
D-6	16
D-7	16
D-8	16
D-9	16
E-6	16
H-2	16
H-3	16
H-4	16
H-6	16
H-7	16
H-8	16
H-9	16
A-2	12
A-6	12
B-7	12
D-3	12
D-4	12
D-5	12
E-4	12
F-1	12
F-2	12
F-4	12
H-5	12
D-11	9
E-7	9
F-3	9
G-5	9
G-4	6
Total	*49*

Criticality 1 or 2	
G-1	12
H-1	6
G-11	4
Total	*3*

Total Tasks: 82

Copyright © Dofasco Inc. 1995 , All Rights Reserved

August 6, 1996

Re: Job Analysis Validation

On August 1, & 2, 1996, a six member panel participated in a two-day Job Analysis Workshop to define the job of Quality Systems Administrator. The attached chart is the result of the Phase I workshop where the job was analyzed and divided into major areas of responsibilities (Duties) and each duty was then divided into work units (Tasks).

The next level of analysis is Phase II where the chart is validated by all stakeholders ie. Managers, Customers, Suppliers, Co-Workers, etc. Your expertise and familiarity with this job plays a major role in the Phase II analysis process. Please look at each statement and determine whether it is self explanatory and follows the guidelines outlined on the back of this page. If you feel that any Tasks and/or Duties that have been omitted or require better definition, make note of these additions and/or changes on your chart by writing in your additional tasks in the blank boxes, drawing an 'X' through tasks that should be eliminated, and drawing a '?' through tasks that don't make sense to you. Return your chart to me or any panel member (listed on the back of profile) by August 30, 1996.

Once the chart has been revised based on your feedback, we will proceed with Phase III of the analysis which can consist of many options such as: breaking down each task into step by step procedures; developing performance standards for each task; developing training programs; etc.

The success of this program depends on your input and cooperation. If you have any questions or concerns do not hesitate to call me or Krystyna McLennan at ext. 7105. Thank you for your participation.

Ralph Kruger
Quality Systems

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Duty & Task Guidelines

Duties
- Groupings of related tasks
- Usually 8 to 12 duties per job

Tasks
- Specific observable units of work
- Usually 6 to 30 tasks per duty
- Usually 50 to 200 tasks per job

Steps
- Specific elements of activities required to perform a task
- Several steps per task

Job Tasks consist of the following criteria:

- Smallest unit of job activity with a meaningful outcome
- Assignable units of work
- Result in a product, service, or decision
- Can usually be observed and/or measured
- Have a definite beginning and ending point
- Can be performed over a short period of time
- Can be performed independent of other work
- Consists of several steps

Task Statements must:

- Concisely describe a task in performance terms
- Contain an action and an object that receives the action
- Contain one or more relevant qualifiers (if possible)
- Be explicit, precise, and stand alone
- Avoid references to knowledge and attitudes
- Avoid references to tools and equipment that merely support the task performance

Example:

Job - ***Home Owner***

Duty - ***Maintain the Yard***

Task - ***Mow the Front Lawn***

Step - ***Start the Mower***

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX G: TASK ANALYSIS DATA SHEET

Task Analysis Process Work-sheet
Revision 04/08/96

1. What are the task inputs?

2. What are the task outputs?

3. What is the final product, service, or decision that determines the end of the task?

4. What is the quality of this task's outputs (product, service, and/or decision)?

   ❑Excellent ❑Meets Standard ❑Poor

   List output deficiencies:

5. What are the prerequisite skills/knowledge required prior to performing this task?

6. What are the cues, performance standards, decisions, tools/equipment/supplies, safety, and errors that need to be captured within this task?

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Cues

Performance Standards

Decisions

Tools/Equipment/Supplies

Safety

Errors

7 Flow chart the step by step process required to carry out this task (include all the information captured)

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX H: JOB RE-ENGINEERING WORK-SHEET

Job Re-Engineering Process Work-sheet
Revision 05/28/96

1. What are the departments goals/objectives/products/services/outputs?

2. What are the jobs goals/objectives/products/services/outputs?

3. Which job tasks support those goals/objectives/products/services/outputs?

4. Out of the above tasks, which tasks are critical?

5. Which tasks are duplicated by other functions?

6. Which tasks are low criticality and high frequency?

7. Which tasks are not working efficiently?

Copyright © Dofasco Inc. 1995 , All Rights Reserved

8. Which tasks can be automated / re-engineered and what would the impact be on other jobs / areas?

9. Which tasks can be eliminated and what would the impact be on other jobs / areas?

10. Which tasks can be moved to other functions and what would the impact be on other jobs / areas?

11. Are there any gaps that aren't covered by a task?

12. What are the future trends that will impact on this job and how will they impact?

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX I: TEMPLATE FOR DEVELOPING PERFORMANCE STANDARDS

Developing Performance Standards - Template			
How do I know if this task has been performed properly?			
Job Code:	**Job Title:**	**Task Code:**	
Duty:	**Task:**		
Speed:			
Is there a time frame which the task must be performed?			
Accuracy:			
What is the level of error that is allowed?			
Are there tolerances or limits that must be met?			
Is there a temperature range that must be maintained?			
Is there a speed range that must be maintained?			
Is there a concentration level that must be maintained?			
Is there a weight range that must be maintained?			
Is there a volume that must be maintained?			
Quantity:			
How many times should the employee perform the task correctly before they are deemed as competent?			
How much lag time is allowed before re-evaluation?			
Quality:			
What is the quality of performance that is expected?			
If the task is performed incorrectly, can this lead to production delays?			
If the task is performed incorrectly, can this lead to equipment damage?			
If the task is performed incorrectly, can this lead to injury?			
How can these be avoided in the performance of the task?			
How far does the worker go when performing the task?			
During an inspection of an investigation, list all the characteristics that must be identified.			
If performing a maintenance task, how far must the individual go to complete that task?			

Copyright © Dofasco Inc. 1995 , All Rights Reserved

Developing Performance Standards - Template

How do I know if this task has been performed properly?

Job Code:	Job Title:	Task Code:
Duty:	Task:	

What is the final outcome of the task?		
What are the decisions that must be reached?		
Will a completed product result from this task and what is it?		
List the company specifications which impact on how the task is performed.		
List the customer specifications which impact on how the task is performed.		
List the manufacturer specifications which impact on how the task is performed.		
Conditions:		
Will the worker be given a checklist, lab results, reference manuals or other written guideline in order to perform the task?		
Is the task to be completed with assistance from co-workers or supervision?		
Is the task to be completed with the assistance of equipment (cranes)?		
Is the task to be completed unassisted?		
Is the environment critical to the task performance?		
Will the task be performed on the work site, in a lab, etc.?		
Can the task be performed under all operating conditions (eg. emergency, standard operating, standby)?		
Are regulatory certificates, training or qualifications required to perform the task?		
Is specialized safety equipment required in the performance of this task?		

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX J: EXAMPLE OF LEVEL 1 EVALUATION (SMILE SHEET)

DACUM Workshop Evaluation

DACUM No. _____ **Date:** _____

1. Was the purpose of this workshop explained to you prior to your attending.

   [] Thoroughly [] Sufficiently [] Fairly [] Not At All

2. Do you feel that your participation in this workshop was:

   [] Worthwhile [] Productive [] Not Necessary [] A Waste Of Time

3. Did the workshop meet your expectations.

   [] Thoroughly [] Mostly [] Somewhat [] Not At All

4. Do you feel the results generated from this workshop will be beneficial?

   [] Yes [] No

   Please explain why or why not. _____
   _____
   _____
   _____

5. Can you think of any other uses for this process?
   _____
   _____
   _____

6. How would you rate the Facilitator(s) on things such as: creating a comfortable and relaxed environment; encouraging participating; remaining neutral; ensuring involvement from each participant; organization; etc.
   _____
   _____
   _____
   _____
   _____

7. Please feel free to make any additional comments or recommendations:
   _____
   _____
   _____

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX K: AUDIT CHECK SHEET

DACUM Process Audit Check Sheet

Depart./B.U. _____ **Area** _____
Sponsor _____ **Auditor** _____ **Date** _____

Audit Time Frame:
❑ One to Four Months ❑ Four to Eight Months ❑ Eight to Twelve Months

1. Number of DACUM workshops completed: _____

2. Purpose and average time length (based on 1 FTE) for development of DACUM profiles:

❑ Define Job	(4 to 6 Weeks)
❑ Define Skills & Knowledge	(4 to 6 Weeks)
❑ Validate Existing Training Programs	(6 to 8 Weeks)
❑ Develop Performance Standards	(6 to 8 Weeks)
❑ Job Comparison	(6 to 8 Weeks)
❑ Job Re-Engineering	(2 to 6 Months)
❑ Competency Evaluation	(3 to 6 Months)
❑ Develop Job-Aids	(5 to 7 Months)
❑ Develop S.O.P.'s	(6 to 8 Months)
❑ Develop Training Programs	(8 to 12 Months)
❑ Other: _____	(Variable) _____

3. To what extend has the purpose been accomplished:
❑ 100% ❑ 75% ❑ 50% ❑ 25% ❑ Not at All

4. Has the process been followed as per agreement?
❑ Yes ❑ No - Explain: _____
_____
_____

5. Are there any constraints and weaknesses that are impeding the process? List:
_____
_____
_____
_____

6. Can these constraints/weaknesses be resolved?
❑ No ❑ Yes - List solutions: _____
_____
_____

7. Have any results or goals been achieved?
❑ No ❑ Yes - List: _____
_____
_____

Copyright © Dofasco Inc. 1995 , All Rights Reserved

8. Are additional training/support services required? List:

_____
_____
_____
_____

9. Summary/ recommendations: _____
_____
_____
_____

❑ Complete ❑ Proceed ❑ Hold ❑ Terminate

10. Alternate proposals: _____
_____
_____
_____
_____
_____
_____

11. Will a follow up audit be required?

❑ No ❑ Yes - Date: _____

_____ Auditor

_____ Sponsor

Copyright © Dofasco Inc. 1995 , All Rights Reserved

APPENDIX L: FACILITOR EVALUATION CHECKSHEET

DACUM Facilitator Evaluation			
Facilitator: **Evaluator:** **Date:**			
Observation	**Yes**	**No**	**Comments**
Conducted panel orientation by thoroughly explaining process			
Created comfortable environment conducive to brainstorming			
Made panel feel at ease			
Maintained a non-threatening environment			
Conducted thorough brainstorming sessions			
Allowed all panel members to participate			
Listened to all panel members and picked up on side conversations			
Handled difficult participants and situations in a positive manner			
Took genuine interest in panels job			
Was attentive and remained neutral			
Developed accurate duty statements			
Developed accurate task statements			
Demonstrated good understanding of verbs			
Kept the panel focused			
Did not lead the panel			
Addressed all panel's questions and concerns			
Remained on schedule			
Kept in charge of the process			
Re-visited and cleaned up poor statements			

Copyright © Dofasco Inc. 1995 , All Rights Reserved

DACUM Facilitator Evaluation

Facilitator: **Evaluator:** **Date:**

Observation	Yes	No	Comments
Conducted the task rating process			
Conducted the brainstorming of skills and tools charts			
Maintained a good rapport with the panel			
Provided ample breaks			
Produced a quality chart as per guidelines			

Overall Assessment

❑ Outstanding ❑ Good ❑ Needs Improvement ❑ Poor

Evaluator(s) Signature:

Copyright © Dofasco Inc. 1995 , All Rights Reserved